



**SAFETY PROGRAM MANUAL**  
/ INJURY & ILLNESS PREVENTION PROGRAM

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## **POLICY STATEMENT ON SAFETY**

The management of this company is very interested in working with you to provide a safe place in which to work. The prevention of accidents and injuries to our employees is the prime objective.

All company personnel are expected to take an active and constant interest in the prevention of accidents. We call upon all employees to use good common sense and in all their actions, take a second to think of the consequences to your fellow employees. We cannot overemphasize that all employees must do their part to minimize accidents.

Please show your support by demonstrating the following:

1. OBSERVING COMPANY SAFETY RULES.
2. KEEPING WORK AREAS FREE OF UNSAFE CONDITIONS.
3. AVOIDING AND ELIMINATING UNSAFE ACTS.
4. PROMPTLY REPORTING UNSAFE ACTS AND CONDITIONS.
5. REPORTING ALL ACCIDENTS IMMEDIATELY.

Accidents cause suffering and pain. We value each of you as individuals and hope you will cooperate with us in this important endeavor.

Any constructive criticism or suggestions toward improving safety on any of our jobs will be given prompt and careful consideration.

Sincerely,

*M. Adam Sarver – Member*

*J.H. rusty Sarver - Member*

*Safety Program Administrator – M. Adam Sarver 304-920-2829 Cell 304-487-3912 office*

## **DUTIES AND RESPONSIBILITIES**

A successful Safety and Injury and Illness Prevention Program can only be achieved and maintained when there is active interest, participation, and accountability at all levels of the organization. To ensure this, the company, delegates the following safety duties to all management personnel. In some cases employees will need to perform safety duties outside their regular responsibilities to prevent accidents.

The Safety Program Administrator must plan, organize, and administer the program by establishing policy, setting goals and objectives, assigning responsibility, motivating subordinates, and monitoring results. Company management will support and maintain an ongoing Safety and Injury and Illness Prevention Program through the following:

1. Providing clear understanding and direction to all management and employees regarding the importance of safety through the development, implementation, monitoring and revision of policy and procedures.
2. Providing financial support for the Safety / Injury and Illness Prevention Program through the provision of adequate funds for the purchase of necessary safety materials, safety equipment, proper personal protective equipment, adequate time for employee safety training, and maintenance of tools and equipment.
3. Overseeing development, implementation, and maintenance of the safety manual, IIPP, and other required safety programs.
4. Maintaining a company commitment to accident prevention by expecting safe conduct on the part of all managers, supervisors, and employees.
5. Holding all levels of management and employees accountable for accident prevention and safety.
6. Reviewing all accident investigations to determine corrective action.

Managers and Supervisors play a key role in the prevention of accidents on the job. They have direct contact with the employees and know the safety requirements for various jobs. Safety responsibilities for these individuals include:

1. Enforce all safety rules in the Code of Safe Practices and ensure safe work procedures.
2. Verifying corrective action has been taken regarding safety hazards and accident investigations.
3. Conducting periodic documented inspections of the work sites to identify and correct unsafe

actions and conditions that could cause accidents.

4. Act as a leader in company safety policy and setting a good example by following all safety rules.
5. Becoming familiar with local, state, and federal safety regulations. The Safety Coordinator is available for assistance.
6. Train all new and existing employees in proper safety procedures and the hazards of the job.
7. Instruct all employees, under their supervision, in safe work practices and job safety requirements.
8. Hold weekly safety meetings with employees.
9. Ensure employee proficiency when assigning work requiring specific knowledge, special operations or equipment.
10. Ascertain that all machinery, equipment, and workstations are maintained in safe working condition and operate properly.
11. Correct unsafe acts and conditions that could cause accidents.
12. Communicate with all employees about safety and accident prevention activities.
13. Correct the cause of any accident as soon as possible.
14. Ascertain that proper first aid and fire fighting equipment is maintained and used when conditions warrant its use.
15. Maintain good housekeeping conditions at all times.
16. Investigate all injuries and accidents to determine their cause and potential corrective action.
17. Ascertain that all injuries involving our employees that require medical attention are properly treated and promptly reported to the office.

The Safety Program Administrator acts as a safety resource for the company and is responsible for maintaining program records. They will also be our primary person to deal with outside agencies regarding the safety program and its contents. Additional duties include:

1. Coordination of all loss prevention activities as a representative of management. Acting as a consultant to management in the implementation and administration of the Safety Program.
2. Develop and implement loss prevention policies and procedures designed to insure compliance with the applicable rules and regulations of all federal, state, and local agencies.
3. Review all accident reports to determine cause and preventability.
4. Conduct periodic reviews of the program and job sites to evaluate performance, discuss problems

and help solve them.

5. Consult with representatives of our insurance companies in order that their loss control services will support the Safety Program.
6. Review Workers' Compensation Claims. Help supply the insurance carrier with information about injured employees in order to keep loss reserves as low as possible.

Every employee is responsible for working safely, both for self-protection and for protection of fellow workers. Employees must also support all company safety efforts. Specific employee safety responsibilities include:

1. If you are unsure how to do any task safely, ask your supervisor.
2. Read and abide by all requirements of the Safety Manual.
3. Know and follow the Code of Safe Practices and all company safety policies and rules.
4. Wear all required personal protective equipment.
5. Report all accidents and injuries, no matter how minor, to your supervisor immediately.
6. Do not operate any equipment you have not been trained and authorized to use.
7. Report any safety hazards or defective equipment immediately to your supervisor.
8. Do not remove, tamper with or defeat any guard, safety device or interlock.
9. Never use any equipment with inoperative or missing guards, safety devices or interlocks.
10. Never possess, or be under the influence of, alcohol or controlled substances while on the premises.
11. Never engage in horseplay or fighting.
12. Participate in, and actively support, the company safety program.



## **COMPLIANCE AND ENFORCEMENT**

The compliance of all employees with our Safety Manual / IIPP is mandatory and shall be considered a condition of employment.

The following programs will be utilized to ensure employee compliance with the safety program and all safety rules.

Training programs  
Retraining  
Disciplinary action  
Optional safety incentive programs

### Training Programs

The importance of safe work practices and the consequences of failing to abide by safety rules will be covered in the New Employee Safety Orientation and safety meetings. This will help ensure that all employees understand and abide by company safety policies.

### Retraining

Employees that are observed performing unsafe acts or not following proper procedures or rules will be retrained by their supervisor. A Safety Contact Report may be completed by the supervisor to document the training. If multiple employees are involved, additional safety meetings will be held.

### Safety Incentive Programs

Although strict adherence to safety policies and procedures is required of all employees, the company may choose to periodically provide recognition of safety-conscious employees and job sites without accidents through a safety incentive program.

### Disciplinary Action:

The failure of an employee to adhere to safety policies and procedures can have a serious impact on everyone concerned. An unsafe act can threaten not only the health and well being of the employee committing the unsafe act but can also affect the safety of his/her coworkers and customers. Accordingly, any employee who violates any of the company's safety policies will be subject to disciplinary action.

Note: Failure to promptly report any on-the-job accident or injury, on the same day as occurrence, is considered a serious violation of the Company's Code of Safe Practices. Any employee who fails to immediately report a work-related accident or injury, no matter how minor shall be subject to disciplinary action.

Employees will be disciplined for infractions of safety rules and unsafe work practices that are observed, not just those that result in an injury. Often, when an injury occurs, the accident

investigation will reveal that the injury was caused because the employee violated an established safety rule and/or safe work practice(s). In any disciplinary action, the supervisor should be cautious that discipline is given to the employee for safety violations, and not simply because the employee was injured on the job or filed a Workers' Compensation claim.

Violations of safety rules and the Code of Safe Practices are to be considered equal to violations of other company policy. Discipline for safety violations will be administered in a manner that is consistent with the company's system of progressive discipline. If, after training, violations occur, disciplinary action will be taken as follows:

Oral warning. Document it, including date and facts on the "Safety Contact Report" form. Add any pertinent witness statements. Restate the policy and correct practice(s).

Written warning. Retrain as to correct procedure/practice.

Written warning with suspension.

Termination

As in all disciplinary actions, each situation is to be carefully evaluated and investigated. The particular step taken in the disciplinary process will depend on the severity of the violation, employee history, and regard to safety. Managers and supervisors should consult with the office if there is any question about whether or not disciplinary action is justified. Employees may be terminated immediately for willful or extremely serious violations. Union or contract employees are entitled to the grievance process specified by their contract.

Note: You must be consistent in the enforcement of all safety rules.

## **SAFETY COMMITTEE**

### **Purpose**

The purpose of the safety committee is to promote workplace safety and health by increasing the communication, education, and involvement of company personnel. The Safety Program Administrator holds permanent membership in the safety committee in order to ensure that responsibility is delegated appropriately.

### **Membership**

The safety committee membership shall be represented by the safety program administrator, supervisory and non-supervisory employees, with non-supervisory employees being the majority. The employees on the committee will be volunteers and will serve on the committee for a two-year term (except for the safety program administrator).

### **Meetings**

There will be one committee meeting every quarter. The dates will be determined by the members' schedules. All committee meetings and training will be conducted during working hours. All committee members will be compensated at their normal rate of pay during the meetings, committee specific training, and any other committee related duties.

### **Emergency Meetings**

The committee may conduct an emergency meeting if the majority of the members feel that such a meeting is necessary. If an emergency meeting is called outside regular working hours, the non-salaried employees will be compensated at their overtime rate.

### **Recordkeeping**

Complete and accurate records of the functions and proceedings of the safety committee will be maintained by the Corporate Office with copies distributed to each worksite.

Meetings will be recorded and minutes will be prepared following each committee meeting. Copies of the minutes will be kept at each worksite. These documents will be made available for inspection upon request by any employee.

### **Communication**

All original written communications between the company and the committee, or true copies thereof, will be maintained at each jobsite and made readily available for inspection by government agencies.

The company shall issue a timely written response to all written questions and recommendations from the safety committee.

## **COMMUNICATION**

This section establishes procedures designed to develop and maintain employee involvement and interest in the Safety Manual. These activities will also ensure effective communication between management and employees on safety related issues that is of prime importance to the company. The following are some of the safety communication methods that may be used:

Periodic safety meetings with employees that encourage participation and open, two-way communication.

New employee safety orientation and provision of the Code of Safe Practices.

Provision and maintenance of employee bulletin boards discussing safety issues, accidents, and general safety suggestions.

Written communications from management or the Safety Program Manager, including memos, postings, payroll stuffers, and newsletters.

Anonymous safety suggestion program.

Employees will be kept advised of highlights and changes relating to the safety program. Management shall relay changes and improvements regarding the safety program to employees, as appropriate. Employees will be involved in future developments and safety activities, by requesting their opinions and comments, as necessary.

All employee-initiated safety related suggestions shall be properly answered, either verbally or in writing, by the appropriate level of management. Unresolved issues shall be relayed to the program manager or safety committee members.

All employees are encouraged to bring any safety concerns they may have to the attention of management. The company will not discriminate against any employee for raising safety issues or concerns.

The company also has a system of anonymous notification whereby employees who wish to inform the company of workplace hazards without identifying themselves may do so by phoning or sending written notification to the main office.

## **CODE OF SAFE PRACTICES**

### **GENERAL RULES**

#### **All Employees**

#### **Ergonomics and Video Display Terminals**

1. Take periodic rest breaks from repetitive or prolonged activities by standing up and stretching.
2. Use a chair that is padded, is stable, mobile, swivels, and allows operator movement.
3. Sit straight up in your chair, and when needed use a footrest that has an adjustable height and is large enough to allow operator movement.
4. Adjust your computer screen and keyboard so that they are directly in front of you. Use a table large enough to hold keyboard, the display screen and all necessary documents.
5. Place the keyboard low enough so that the operator is not required to reach up or out to the keys.
6. Keep wrists and hands in a straight position while key stroking by keeping forearms parallel to the floor and elbows at your sides.

#### **Housekeeping**

1. Do not place materials such as boxes or trash in walkways and passageways.
2. Sweep up shavings from around equipment such as drill presses, lathes, or planers by using a broom and a dustpan.
3. Mop up water around drinking fountains and drink dispensing machines immediately.
4. Do not store or leave items on stairways.
5. Do not block or obstruct stairwells, exits, or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
6. Do not block the walking surfaces of elevated working platforms with tools or materials that are not being used.
7. Straighten or remove rugs and mats that do not lie flat on the floor.
8. Remove protruding nails or bend them down into the lumber by using a claw hammer.
9. Return tools to their storage places after using them.
10. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.

#### **Ladders and Step Ladders**

1. Read and follow the manufacturer's instruction label affixed to the ladder.
  - a. Make sure labels confirm that the ladder is ANSI/OSHA certified.
  - b. Load limits on labels cannot be exceeded under ANY circumstance.
2. Do not use ladders that have loose rungs, cracked, or split side rails, missing rubber footpads, or are otherwise visibly damaged. **DO NOT EXCEED LABELED LOAD LIMITS.** This includes your weight and material/tool that you are carrying.
3. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or mud.
4. Do not place ladders in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from the ladder. Lock the doorway that you are blocking with the ladder and post signs that will detour traffic away from your work.
5. Do not place a ladder at a blind corner or doorway without diverting foot traffic by blocking or roping off the area.
6. Allow only one person on the ladder at a time.
7. Face the ladder when climbing up or down it.

8. Maintain a three-point contact by keeping both hands and one foot or both feet and one hand on the ladder at all times when climbing up or down the ladder.
9. When performing work from a ladder, face the ladder and do not lean backward or sideways from the ladder.
10. Do not stand on tables, chairs, boxes or other improvised climbing devices to reach high places. Use the ladder or stepstool.
11. Do not stand on the top two rungs of any ladder.
12. Do not stand on a ladder that wobbles, or that leans to the left or right of center.
13. When using a straight or extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
14. Secure the ladder in place by having another employee hold it if it cannot be tied to the structure.
15. Do not move a rolling ladder while someone is on it.
16. Do not place ladders on barrels, boxes, loose bricks, pails, concrete blocks, or other unstable bases.
17. Do not carry items in your hands while climbing up or down a ladder.
18. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
19. Do not use a ladder as a horizontal platform.
20. Do not use a ladder for any purpose other than what it is designed for.

#### Lifting Procedures

1. Plan the move before lifting; ensure that you have an unobstructed pathway.
2. Test the weight of the load before lifting by pushing the load along its resting surface.
3. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, dollies, pallet jacks and carts, or get assistance from a co-worker.
4. If assistance is required to perform a lift, coordinate and communicate your movements with those of your co-worker.
5. Position your feet 6 to 12 inches apart with one foot slightly in front of the other.
6. Face the load.
7. Bend at the knees, not at the back.
8. Keep your back straight.
9. Get a firm grip on the object using your hands and fingers. Use handles when they are present.
10. Hold the object as close to your body as possible.
11. While keeping the weight of the load in your legs, stand to an erect position.
12. Perform lifting movements smoothly and gradually; do not jerk the load.
13. If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.
14. Set down objects in the same manner as you picked them up, except in reverse.
15. Do not lift an object from the floor to a level above your waist in one motion. Set the load down on a table or bench and then adjust your grip before lifting it higher.
16. Never lift anything if your hands are greasy or wet.
17. Wear protective gloves when lifting objects that have sharp corners or jagged edges.

## OFFICE SAFETY

### General Rules

1. Do not stand on furniture to reach high places.
2. Do not kick objects out of your pathway; pick them up or push them out of the way.
3. Do not jump from ladders or step stools.
4. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
5. Do not throw matches, cigarettes or other smoking materials into trash baskets.
6. Do not tilt the chair you are sitting in. Keep all chair legs on the floor.
7. Use the ladder or step stool to retrieve or store items that are located above your head.

### Doors

1. Keep doors in hallways fully open or fully closed.
2. Use the handle when closing doors.

### Files

1. Open only one file cabinet drawer at a time. Close the filing cabinet drawer you are working in before opening another filing drawer in the same cabinet.
2. Put heavy files in the bottom drawers of file cabinets.
3. Use the handle when closing drawers and files.

### Sharp Objects

1. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
2. Carry pencils, scissors, and other sharp objects with the tips pointing down.

### Paper Cutter/Shredder

1. Position hands and fingers on the handle of the paper cutter before pressing down on the blade.
2. Keep the paper cutter handle in the closed or locked position when it is not being used.
3. Do not use paper-cutting devices if the finger guard is missing.
4. Do not place your fingers in or near the feed of a paper shredder.

### Staplers

1. Point the ejector slot away from yourself and bystanders when refilling staplers.
2. Keep fingers away from the ejector slot when loading or testing stapling devices.  
Use a staple remover, not your fingers, for removing staples.

### Electrical

1. Do not use frayed, cut, or cracked electrical cords.
2. Do not plug multiple electrical cords into a single outlet.

3. Do not use extension or power cords that have the ground prong removed or broken off.
4. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
5. Turn the power switch to "Off" and unplug office machines before adjusting, lubricating or cleaning them.

#### Fans

1. Do not use fans that have excessive vibration or missing guards.
2. Do not place floor type fans in walkways, aisles, or doorways.

#### Stairs

1. Use the handrails when ascending or descending stairs or ramps.
2. Do not run on stairs or take more than one-step at a time.

#### Phone Use

1. Sit up straight in your chair.
2. Keep your feet on floor.
3. If the chair height is too high, use a book or other object as a footrest.
4. If you use a traditional handset, do not hold the receiver by bending your neck to trap the receiver between your head and shoulder. Hold the receiver with your hand.
5. Use your headset for extended phone use.
6. For additional lower back support, place a pillow or bundled clothing in the chair at the small of your back.

#### Carts

1. Do not exceed the rated load capacity noted on the manufacturer's label on the cart.
2. Ask a spotter to help guide carts around corners and through narrow aisles.
3. Do not stand on a cart or float or use it as a work platform.

#### Hand Truck Operations

1. When loading hand trucks, keep your feet clear of the wheels.
2. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.
3. Place the load so that it will not slip, shift, or fall. Use the straps, if they are provided, to secure the load.
4. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
5. Tip the load slightly forward so that the tongue of the hand truck goes under the load.
6. Push the tongue of the hand truck all the way under the load that is to be moved.
7. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
8. Push the load so that the weight will be carried by the axle and not the handles.
9. If your view is obstructed, ask a spotter to assist in guiding the load.
10. Do not walk backward with the hand truck, unless going up stairs or ramps.
11. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
12. Move hand trucks at a walking pace.
13. Store hand trucks with the tongue under a pallet, shelf, or table.

#### Hazardous Materials

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet



(MSDS) for each chemical product you will be using in your workplace.

2. Use personal protective clothing or equipment such as goggles, face shield, neoprene gloves, rubber boots, shoe covers, and rubber aprons, when using chemicals labeled "Flammable", "Corrosive", and "Caustic" or "Poisonous".
3. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
4. Do not use chemicals from unlabeled containers or unmarked cylinders.
5. Do not drag containers labeled "Flammable."
6. Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic".

#### Storeroom/Stockroom:

1. Use long handled snips when cutting strapping bands away from a shipping container.
2. Wear your safety glasses when cutting strapping bands, uncrating materials, and driving nails.
3. Stand to the side of the strapping band when cutting it. Use extreme care when removing bands from pipe on round stock loads. Chock or block loads before removing band to prevent a load shift.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
6. Do not run on stairs or take more than one-step of a staircase at a time.
7. Do not jump from elevated places such as truck beds, platforms, or ladders.
8. Do not lift slippery or wet objects; use a hand truck.
9. Follow the safe handling instructions listed on the label of the container or listed on the corresponding Material Safety Data Sheet when handling each chemical stored in the stockroom.
10. Do not handle or load any containers of chemicals if their containers are cracked or leaking.

## **CARPENTRY**

### **ELECTRICAL POWERED TOOLS**

1. Do not use power equipment or tools on which you have not been trained.
2. Keep power cords away from the path of drills, saws, vacuum cleaners, floor polishers, mowers, slicers, knives, grinders, irons, and presses.
3. Do not carry plugged-in equipment or tools with your finger on the switch.
4. Do not carry equipment or tools by the cord.
5. Disconnect the tool from the outlet by pulling on the plug, not the cord.
6. Turn the tool off before plugging or unplugging it.
7. Do not leave tools that are "On" unattended.
8. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.
9. Do not operate spark inducing tools such as grinders, drills, or saws near containers labeled "Flammable" or in an explosive atmosphere such as a paint spray booth.
10. Turn off electrical tools and disconnect the power source from the outlet before attempting repairs or service work. Tag the tool "Out of Service."
11. Do not connect multiple electrical tools into a single outlet.
12. Do not run extension cords through doorways, through holes in ceilings, walls, or floors.
13. Do not drive over, drag, step on or place objects on a cord.
14. Do not operate a power hand tool or portable appliance with a two-pronged adapter or a two-conductor extension cord.
15. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.

16. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
17. Do not operate a power hand tool or portable appliance while holding a part of the metal casing or holding the extension cord in your hand. Hold all portable power tools by the plastic handgrips or other nonconductive areas designed for gripping purposes.
18. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced, or damaged power cord.
19. Do not operate a power hand tool or portable appliance if the ground pin from the three-pronged power plug is missing or has been removed.
20. Keep all power tools clean and in good/safe working order. This includes not removing guards or safety equipment that comes on the tool.

#### GARAGE DOORS

1. Do not use undersized rods or other improvised tools to wind garage door springs.
2. Engage garage door lock in the "locked" position before winding the springs.
3. Do not attempt to adjust winding cones or bars when the garage door is in the full open position.

#### HAND TOOLS

1. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
2. Keep the blades of all cutting tools sharp.
3. Carry all sharp tools in sheaths or holsters.
4. Tag worn, damaged, or defective tools "Out of Service" and do not use them.
5. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
6. Do not use impact tools such as hammers, chisels, punches, or steel stakes that have mushroomed heads.
7. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
8. Do not chop at heights above your head when working with a hand axe.
9. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, aviation snips, scrapers, chisels or files in your pocket unless the tool or pocket is sheathed.
10. Do not perform "make-shift" repairs to tools.
11. Do not use "cheaters" on load binders or "boomers."
12. Do not carry tools in your hand when climbing. Carry tools in tool belts or hoist the tools to the work area with a hand line.
13. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.

#### Chisels

1. Keep the cutting edge of the chisel sharp.
2. Do not use chisels with damaged striking ferrules.
3. Hold a chisel with a tool holder if possible.
4. Clamp a small work piece in a vise and chip towards the stationary jaw when working with a chisel.

#### Clamps

1. Do not use the C-clamp for hoisting materials.
2. Do not use the C-clamp as a permanent fastening device.

#### Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver, or chisel.
2. When using a file or a rasp, grasp the handle in one hand and the toe of the file in the other.
3. Do not hammer on a file.

#### Hammers

1. Use a claw hammer for pulling nails and driving nails.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike a hardened steel surface, such as a cold chisel, with a claw hammer.
4. Do not strike one hammer against another hammer.
5. Do not use a hammer if your hands are oily, greasy, or wet.
6. Do not use a hammer as a wedge, a pry bar or for pulling large spikes.
7. Use only a sledge-type hammer on a striking face wrench.

#### Knives/Sharp instruments

1. When handling knife blades and other cutting tools, direct sharp points and edges away from you.
2. Store knives in knife blocks or in sheaths after use.
3. Do not use knives with dull blades.
4. Do not use honing steels that do not have disc guards.
5. Do not attempt to catch a falling knife.
6. Use knives for the operation for which they are named.
7. Do not use knives with broken or loose handles.
8. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
9. Do not pick up knives by their blades.
10. Carry knives with their tips pointed towards the floor.

#### Pliers

1. Do not attempt to force pliers by using a hammer on them.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with insulated handles for electrical work.
4. Do not use pliers that are cracked, broken, or sprung.
5. When using diagonal cutting pliers, shield the loose pieces of cut material from flying into the air by using a cloth or your gloved hand.

#### Saws

1. Do not use an adjustable blade saw such as a hacksaw, coping saw, keyhole saw, or bow saw, if the blade is not taut.
2. Do not use a saw that has dull saw blades.
3. Keep hands and fingers away from the saw blade while using the saw.
4. Do not carry a saw by the blade.
5. When using a handsaw, hold the work piece firmly against the worktable.
6. Do not use woodworking equipment such as circular saws, radial saws, or jointers if they do not have guards on the saw blade.
7. Keep control of saws by decreasing downward pressure at the end of the stroke.
8. When operating scroll saws, stop the machine before removing scrap pieces from the table.
9. Clamp work when using a hole saw.

#### Screwdrivers

1. Always match the size and type of screwdriver blade to fit the head of the screw.
2. Do not hold the work piece against your body while using a screwdriver.
3. Do not put your fingers near the blade of the screwdriver when tightening a screw.

4. Use an awl, drill or a nail to make a starting hole for screws.
5. Do not force a screwdriver by using a hammer or pliers on it.
6. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
7. Use a screwdriver that has an insulated handle for electrical work.
8. Do not use a screwdriver if your hands are wet, oily, or greasy.
9. Do not use a screwdriver to test the charge of a battery.
10. When using a spiral ratchet screwdriver, push down firmly and slowly.

#### Snips

1. Wear safety glasses or safety goggles when using snips to cut materials.
2. Wear work gloves when cutting materials with snips.
3. Do not use straight cut snips to cut curves.
4. Keep the blade aligned by tightening the nut and bolt on the snips.
5. Do not use snips as a hammer, screwdriver, or pry bar.
6. Use the locking clip on the snips after use.

#### Vises

1. When clamping a long work piece in a vise, support the far end of the work piece by using an adjustable pipe stand, sawhorse, or box.
2. Position the work piece in the vise so that the entire face of the jaw supports the work piece.
3. Do not use a vise that has worn or broken jaw inserts, or has cracks or fractures in the body of the vise.
4. Do not slip a pipe over the handle of a vise to gain extra leverage.

#### HAZARDOUS MATERIALS

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product used in your workplace.
2. Do not use chemicals from unlabeled containers and unmarked cylinders.

#### HOUSEKEEPING

1. Do not place material such as boxes or trash in walkways and passageways.
2. Sweep up shavings from around equipment such as drill presses, lathes, or planers by using a broom and a dustpan.
3. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
4. Keep walking surfaces of elevated working platforms, such as scaffolds, clear of tools and materials that are not being used.
5. Remove protruding nails or bend them down into the lumber by using a claw hammer.
6. Return tools to their storage places after use.
7. Do not use gasoline for cleaning purposes.

#### LADDERS AND STEP LADDERS

1. Read and follow the manufacturer's instructions label affixed to the ladder if you are unsure how to use the ladder.
2. Do not use ladders that have loose rungs, cracked or split side rails, missing rubber footpads, or are otherwise visibly damaged.
3. Keep ladder rungs clean and free of grease. Remove material buildup such as dirt or mud.
4. Do not use a metal ladder on rooftops or within 50 feet of electrical power lines.
5. Allow only one person on the ladder at a time.
6. Face the ladder when climbing up or down.
7. Maintain a three-point contact by keeping both hands and one foot or both feet and one hand

on the ladder at all times when climbing up or down.

8. When performing work from a ladder, face the ladder and do not lean backward or sideways from the ladder.
9. Do not stand on the top two rungs of any ladder.
10. Do not stand on a ladder that wobbles, or that leans to the left or right.
11. When using a straight ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
12. Do not move a rolling ladder while someone is on it.
13. Do not place ladders on barrels, boxes, loose bricks, pails, concrete blocks, or other unstable bases.
14. Do not carry items in your hands while climbing up or down a ladder.
15. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
16. Do not use a ladder as a horizontal platform.

#### LIFTING PROCEDURES

1. Plan the move before lifting; remove obstructions from your chosen pathway.
2. Test the weight of the load before lifting by pushing the load along its resting surface.
3. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, dollies, pallet jacks and carts, or get assistance from a co-worker.
4. If assistance is required to perform a lift, coordinate and communicate your movements with those of your co-worker.
5. Position your feet 6 to 12 inches apart with one foot slightly in front of the other.
6. Face the load.
7. Bend at the knees, not at the back.
8. Keep your back straight.
9. Get a firm grip on the object with your hands and fingers. Use handles when present.
10. Never lift anything if your hands are greasy or wet.
11. Wear protective gloves when lifting objects with sharp corners or jagged edges.
12. Hold objects as close to your body as possible.
13. Perform lifting movements smoothly and gradually; do not jerk the load.
14. If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.
15. Set down objects in the same manner as you picked them up, except in reverse.
16. Do not lift an object from the floor to a level above your waist in one motion. Set the load down on a table or bench and then adjust your grip before lifting it higher.
17. Slide materials to the end of the tailgate before attempting to lift them off of a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

#### PERSONAL PROTECTIVE EQUIPMENT

1. Do not paint or drill holes in hard hats.
2. Do not wear hard hats that are dented or cracked.
3. Wear safety glasses, goggles, or face shield when using chippers, grinders, lathes, or Sanders.
4. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

#### PNEUMATIC TOOLS

1. Do not point a compressed air hose at bystanders or use it to clean your clothing.
2. Do not use tools that have handles with burrs or cracks.
3. Do not use compressors if their belt guards are missing. Replace belt guards before use.
4. Turn the tool "off" and let it come to a complete stop before leaving it unattended.

5. Disconnect the tool from the airline before making any adjustments or repairs to the tool.
6. Engage positive locks on hoses and attachments before use.
7. Shut off pressure valve and disconnect airline when not in use.
8. Tag damaged or defective pneumatic tools "Out of Service" to prevent usage of the tool by other employees.

#### POWDER ACTUATED TOOLS

1. Only employer-authorized personnel, with a valid certification card may operate powder-actuated tools.
2. Wear safety glasses, goggles, or face shields when operating powder actuated tools.
3. Wear earplugs or earmuffs when making fastenings.
4. Do not permit bystanders in the area when using a powder-actuated tool.
5. Do not load tool until ready to make a fastening.
6. Keep tool pointed in a safe direction (away from personnel).
7. Post a sign alerting co-workers that a powder actuated tool is being used.
8. After use, lock powder actuated tools and powder loads in a container and store in a safe place such as a locker or the trunk of a car.

#### SCAFFOLDING

1. Follow the manufacturer's instructions when erecting the scaffold.
2. Do not work on scaffolds outside during stormy or windy weather.
3. Do not climb on scaffolds that wobble or lean to one side.
4. Initially inspect scaffold prior to mounting. Do not use a scaffold if any pulley, block, hook, or fitting is visibly worn, cracked, rusted, or otherwise damaged. Do not use a scaffold if any rope is frayed, torn, or visibly damaged.
5. Do not use any scaffold tagged "Out of Service."
6. Do not use unstable objects such as barrels, boxes, loose brick or concrete blocks to support scaffolds or planks.
7. Do not use a scaffold unless guardrails and all flooring are in place.
8. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
9. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toe board or planking.
10. Use safety belts and lanyards when working from scaffolds that are higher than 10 feet and that do not have top and mid-guard rails.
11. Do not climb the cross braces for access to the scaffold. Use a ladder.
12. Do not jump from, to, or between scaffolding.
13. Do not slide down cables, ropes or guys used for bracing.
14. Keep both feet on the decking. Do not sit or climb on the guardrails.
15. Do not lean out from the scaffold. Do not rock the scaffold.
16. Keep the scaffold free of scraps, loose tools, tangled lines and other obstructions.
17. Do not throw anything "overboard" unless a spotter is available. Use debris chutes or lower things by hoist or by hand.
18. Do not move a mobile scaffold with anyone on the scaffold.
19. Lock and chock wheels on rolling scaffolds before using.

#### STAIRWAYS, FLOORS AND OPENINGS

1. Do not work on open sided floors, elevated walkways or elevated platforms if there are no guardrails in place.
2. Stand clear of floor openings if guardrails or covers are removed or displaced.

#### HEAVY EQUIPMENT OPERATORS

### Site Safety

1. Do not start work until barricades, barrier logs, fill or other protection have been installed to isolate the work area from local traffic.
2. Do not work outdoors during lightning storms.
3. Drink plenty of clear liquids during your breaks.
4. Take breaks in shaded areas.

### Heavy Equipment Safety

#### General

1. No passengers are permitted on heavy equipment.
2. Keep windows and windshield clean.
3. Do not use heavy equipment if its horn or backup alarm does not sound.
4. Turn off the engine before leaving heavy equipment unattended.
5. Do not jump off of or onto any heavy equipment.
6. Keep heavy equipment in gear when going down grade. Do not use neutral.
7. Display the "Slow Moving Vehicle" sign when operating heavy equipment on roads.
8. Do not operate backhoes, power shovels and other heavy equipment within two (2) feet from the edge of an excavation.

#### Backhoe/Power Shovel Operations

1. Do not use a bucket or other attachments for a staging or temporary platform for workers.
2. Do not operate backhoe over or across underground utilities that are marked by paint, flagged, or staked.
3. Set swing brake of the bucket arm when moving the vehicle to and from the digging site.
4. Stay in the compartment during operation of the backhoe or power shovel. Do not reach in or attempt to operate controls from outside the backhoe or power shovel.

### Forklifts Pre-Use Inspection

Do not use forklift if any of the following conditions exist:

1. The mast has broken or cracked weld-points.
2. The roller tracks are not greased or the chains are not free to travel.
3. Forks are unequally spaced or cracks exist along the blade or at the heels.
4. Hydraulic fluid levels are low.
5. Hydraulic line and fitting have excessive wear or are crimped.
6. Fluid is leaking from the lift or the tilt cylinders.
7. The hardware on the cylinders is loose.
8. Tires are excessively worn, split, or have missing tire material.
9. Air filled tires are not filled to the operating pressure indicated on the tire.
10. Batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections, or clogged vent caps.

### Starting the Forklift

- Apply the foot brake and shift gears to neutral before turning the key.

### Picking Up a Load

1. Square up on the center of the load and approach it straight on with the forks in the travel position.
2. Stop when the tips of your forks are about a foot from the load.
3. Level the forks and slowly drive forward until the load is resting against the backrest of the mast.

4. Lift the load high enough to clear whatever is under it.
5. Back up about one foot, then slowly and evenly tilt the mast backwards to stabilize the load.

#### Putting a Load Down

1. Square up and stop about one foot from desired location.
2. Level the forks and drive to the loading spot.
3. Slowly lower the load to the floor.
4. Tilt the forks slightly forward so that you do not hook the load.
5. When the path behind you is clear of obstructions, back straight out until the forks have cleared the pallet.

#### Stacking One Load on Top of Another

1. Stop about one foot away from the loading area and lift the mast high enough to clear the top of the stack.
2. Slowly move forward until the load is squarely over the top of the stack.
3. Level the forks and lower the mast until the load is no longer supported by the forks.
4. Look over both shoulders for obstructions and back straight out if the path is clear.

#### Forklift Safety Rules

1. Do not exceed the lift capacity of the forklift. Read the lift capacity plate on the forklift if you are unsure.
2. Follow the manufacturer's guidelines concerning changes in the lift capacity before adding attachments, such as wedges, to a forklift.
3. Lift the load an inch or two to test for stability: If the rear wheels are not in firm contact with the floor, take a lighter load or use a forklift with a higher lift capacity.
4. Do not raise or lower a load while you are en-route. Wait until you are in the loading area and have stopped before raising or lowering the load.
5. After picking up a load, adjust the forks so that the load is tilted slightly backward for added stability.
6. Drive with the load at a ground clearance height of 4-6 inches at the tips and 2 inches at the heels in order to clear most uneven surfaces and debris.
7. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as icy or wet floors.
8. Approach angle. railroad tracks at a 45
9. Do not drive over objects in your pathway.
10. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
11. Steer wide when making turns.
12. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
13. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
14. Obey all traffic rules and signs.
15. Sound horn when approaching blind corners, doorways, or aisles to alert other operators and pedestrians.
16. Do not exceed a safe working speed of five miles per hour. Slow down in congested areas.
17. Stay a minimum distance of three truck lengths from other operating mobile equipment.
18. Drive in reverse and use a signal person when your vision is blocked by the load.
19. Look in the direction that you are driving; proceed when you have a clear path.
20. Do not use bare forks as a man-lift platform.
21. Do not drive the forklift while people are on the attached man-lift platform.
22. Drive loaded forklifts forward up ramps.



23. Raise the forks an additional two inches to avoid hitting or scraping the ramp surface as you approach the ramp.
24. Drive loaded forklifts in reverse when driving down a ramp.
25. Drive unloaded forklifts in reverse going up a ramp and forward going down a ramp.
26. Do not attempt to turn around on a ramp.
27. Do not use "Reverse" to brake.
28. Lower the mast completely, turn off the engine, and set the parking brake before leaving your forklift.

## HEAVY EQUIPMENT OPERATORS

### Personal Protective Equipment

1. Wear hard hats, hearing protection and safety goggles while operating heavy equipment.
2. Do not wear hard hats that are dented or cracked.
3. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.

### General Hand Tool Safety

1. Keep the blade of all cutting tools sharp.
2. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
3. Tag worn, damaged, or defective tools "Out of Service" and do not use them.
4. Do not use impact tools such as hammers or chisels that have mushroomed heads.
5. When handing a tool to another person, direct sharp points, and cutting edges away from yourself and the other person.
6. When using knives, shears or other cutting tools, cut in a direction away from your body.
7. Carry all sharp tools in a sheath or holster.
8. Do not perform "make-shift" repairs to tools.
9. Do not use "cheaters" on load binders or "boomers."
10. Do not carry tools in your hand when climbing. Carry tools in tool belts or hoist the tools to the work area using a hand line.
11. Do not throw tools from one location to another or from one employee to another.

### Pneumatic Tools

1. Do not point a charged compressed air hose at bystanders or use it to clean your clothing.
2. Lock and/or tag tools "Out of Service" to prevent usage of the tool.
3. Do not use tools that have handles with burrs or cracks.
4. Do not use compressors if their belt guards are missing. Replace belt guards before using the compressor.
5. Turn the power switch of the tool to "Off" and let it come to a complete stop before leaving it unattended.
6. Disconnect the tool from the airline before making any adjustments or repairs to the tool.

### Lifting Equipment

1. Do not use chain slings if links are cracked, twisted, stretched, or bent.
2. Do not shorten slings by using makeshift devices such as knots or bolts.
3. Do not use a kinked chain.
4. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
5. Wear work gloves when handling rough, sharp-edged, or abrasive chains, cables, ropes, or slings.
6. Do not alter or remove the safety latch on hooks. Do not use a hook that does not have a

safety latch, or if the safety latch is bent.

#### When Lifting

1. Do not place your hands between the sling and its load when the sling is being tightened around the load.
2. Lift the load from the center of hooks, not from the point.

### GENERAL LABOR PERSONNEL

#### Site Safety

1. Do not start work until barricades, barrier logs, fill or other protection have been installed to isolate the work area from local traffic.
2. Reflective warning vests must be worn by traffic flagmen who are assigned to controlling traffic.
3. Do not approach any heavy equipment until the operator has seen you and has signaled to you that it is safe to approach.
4. Walk around or step over holes, rocks, roots, materials or equipment in your pathway.
5. Do not work outdoors during lightning storms.
6. Drink plenty of clear liquids during your breaks.
7. Take breaks in shaded areas.

#### Knives/Sharp Instruments

1. Use knives for the operation for which they are made.
2. Do not use knives that have broken or loose handles.
3. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
4. When handling knife blades and other cutting tools, direct sharp points and edges away from you.
5. Cut in the direction away from your body when using knives.

#### Hand Tool Safety

##### General

1. Keep the blade of all cutting tools sharp.
2. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, chisels or files in your pocket unless the tool or pocket is sheathed.
3. Tag worn, damaged, or defective tools "Out of Service" and do not use them.
4. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
5. Do not use impact tools such as hammers, steel stakes, or chisels that have mushroomed heads.
6. Do not perform "make-shift" repairs to tools.
7. Do not throw tools from one location to another or from one employee to another.
8. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

##### Hammers

1. Do not use a hammer if your hands are oily, greasy, or wet.
2. Do not strike objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.

##### Pliers

1. Do not attempt to force pliers by using a hammer on them.
2. Do not use pliers that are cracked, broken, or sprung.

### Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use a saw that has dull saw blades.
3. Oil saw blades after each use.
4. Keep hands and fingers away from the saw blade while you are using the saw.
5. Do not carry a saw by the blade.
6. When using a handsaw, hold the work piece firmly against the worktable.

### Electrical Powered Tools

1. Do not use power equipment or tools on which you have not been trained.
2. Keep power cords away from path of power saws.
3. Do not use cords that have splices, exposed wires, or cracked or frayed ends.
4. Do not carry plugged in equipment or tools with your finger on the switch.
5. Do not carry equipment or tools by the cord.
6. Turn the tool off before plugging or unplugging it.
7. Do not leave tools that are "On" unattended.
8. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors or wet ground.
9. Do not use extension cords or other grounded three pronged power cords that have the ground prong removed or broken off.
10. Do not use an adapter that eliminates the ground such as a cheater plug.
11. Do not drive over, drag, step on or place objects on a cord.

### General Power Saw Safety

1. Wear the prescribed personal protective equipment such as goggles, gloves, dust masks, and hearing protection when operating the power saw.
2. Do not use a power saw that has cracked, broken, or loose guards or other visible damage.
3. Turn off the saw before making measurements, adjustments, or repairs.
4. Keep your hands away from the exposed blade.
5. Operate the saw at full cutting speed with a sharp blade to prevent kickbacks.
6. If the saw becomes jammed, turn the power switch of the saw to "OFF" before pulling out the incomplete cut.
7. Do not alter the anti-kickback device or blade guard.
8. When using the power saw, do not reach across the cutting operation.
9. When using the power saw, do not hold the work piece against your body when making the cut.

### Pneumatic Tools/Compressed Air

1. Do not point a compressed air hose at bystanders or use it to clean your clothing.
2. Do not use pneumatic tools that have handles with burrs or cracks.
3. Lock and/or tag tools "Out of Service" to prevent usage of the tool.
4. Do not use compressors if their belt guards are missing. Replace the belt guards before using the compressor.
5. Turn the power switch of the tool to "Off" and let it come to a complete stop before leaving it unattended.
6. Disconnect the tool from the airline before making any adjustments or repairs to the tool.

### Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Do not continue to work if your safety glasses become fogged. Stop work and clean the

glasses until the lenses are clear and defogged.

3. Wear your earplugs or earmuffs in areas posted "Hearing Protection Required."
4. Wear heavy leather-faced work gloves when handling wire-mesh.

#### Hazardous Materials

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you will be using in your workplace.
2. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
3. Each time you use your gloves, wash them, before removing the gloves, using cold tap water and normal hand washing motion. Always wash your hands after removing the gloves.
4. Do not use chemicals from unlabeled containers or unmarked cylinders.
5. Always use chemical goggles and a face shield before handling chemicals labeled "Corrosive" or "Caustic."
6. Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic."
7. Do not smoke while handling chemicals labeled "Flammable".

#### Vehicle/Trailer Safety

##### Vehicle Safety

Drive on the graded roadways that have been leveled for this purpose.

Turn on low-beam headlights when driving on the site.

Hold onto vehicle when stepping out of it onto loose ground, holes, or rocks.

Tools and materials shall be secured to prevent movement when transported in the same compartment with employees.

Do not exceed the maximum number of people for which the vehicle is designed to transport.

Do not operate a loaded vehicle or load it, by means of cranes, power shovels, loaders, or similar equipment, if the vehicle does not have a cab shield and/or canopy to protect you from shifting or falling materials.

##### G. Fueling Vehicles

Turn the vehicle off before fueling.

Do not smoke while fueling a vehicle.

Wash hands with soap and water if you spill gasoline on them.

Do not carry extra fuel on any vehicle except in a properly mounted fuel tank approved by your employer.

##### H. Driving Rules

Shut all doors and fasten your seat belt before moving the vehicle.

Obey all traffic patterns and signs at all times.

Maintain a three point contact using both hands and one foot or both feet and one hand when climbing into and out of vehicles.

Drive up the slope or down the slope not across the slope.

##### Trailer Safety

Set the parking brake in the towing vehicle and use wheel blocks to chock the wheels of the trailer before removing the kettle from the trailer.

Permit no one to ride in the trailer.

Use ramps to load and unload kettles and equipment from the trailer.

Take slow, wide turns when towing trailers.

Do not exceed the load capacity as posted on the trailer door of the trailer.

Do not place all the heavy equipment on one side of the trailer.

Secure equipment and fuel tanks to the vehicle with chains or straps to eliminate or minimize

shifting of the load.

Do not mount or dismount equipment on the traffic side.

#### LATHERS

Lifting Safety (Bags, Cans, Buckets)

Position your feet 6 to 12 inches apart with one foot slightly in front of the other.

Face the load.

Bend at the knees, not at the back.

Keep your back straight.

Get a firm grip on the object with your hands and fingers. Use handles when present.

Perform lifting movements smoothly and gradually; do not jerk the load.

Hold objects as close to your body as possible.

If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.

Set down objects in the same manner as you picked them up, except in reverse.

Slide materials to the end of the tailgate before attempting to lift them off a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

#### Sandblasting

Only authorized personnel may use blasting equipment.

Wear your eye protection, respirator, and protective clothing when blasting.

Visually inspect hoses or fittings on blasting equipment for wear and tear prior to use. Do not use if the hose or fitting is cracked or otherwise damaged.

Post area, "Unauthorized personnel keep out".

When working outdoors, keep shirts on to avoid bruises, dehydration, and sunburn.

#### Restoration Job and Asbestos is Suspected

Do not perform asbestos removal operations, unless you have been trained, qualified, and certified in asbestos removal procedures.

Use the respirator that has been fit tested and assigned to you by your supervisor.

Always assume that materials used prior to 1976, such as plaster and blown insulation contain asbestos.

Do not use sanders or power devices that may create dust or airborne particles.

Do not dry scrape, bead blast or mechanically pulverize any existing plaster or blown insulation.

#### Fiberglass Batts or Sprayed-on Insulation

Do not take work clothes home when exposed to sprayed-on insulation or fiberglass batts.

Change your work clothes before leaving the job site.

Place work clothes contaminated with fiberglass or sprayed-on insulation in a closed labeled container approved by your employer.

Use your respirator when working with sprayed-on insulation or fiberglass.

#### Respiratory Protection

Shave daily to prevent facial hair from interfering with the face seal of the respirator.

Clean and return respirators to their carrying cases or cartons and store them in your locker or in a designated storage area as instructed by your employer when the work is completed.

Only use the respirator that has been fitted and issued to you.

#### Infection Control

Wash your hands after removing your gloves with soap or mild detergent

and water before eating, smoking, using the toilet, or any areas of the body that may have

contacted cementitious mixtures, pastes or spray-on insulation at the end of each workday.

B. Use a mechanic's cream hand cleaner such as "Go-Jo" or "Humus" where water is not readily available.

#### FINISHING PERSONNEL-(tapping, bedding, sanding)

##### Hazardous Materials

##### Mixing Cementitious Components

Apply Vaseline to exposed skin surfaces on your arms and hands prior to handling plaster, lime or any cementitious mixtures.

Do not handle lime or cementitious mixtures if you have open cuts or scratches on exposed skin surfaces such as your arms or hands.

Use personal protective clothing or equipment such as canvas gloves and protective eyewear, to avoid cement poison or burns.

Open doors, windows, and turn the power switch of the local exhaust fans to "On" when working indoors.

#### Applying Exterior Finishes (scratch coats, coquina, stucco installations, etc.)

Do not use a metal ladder on rooftops or within 50 feet of electrical power lines.

Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.

When working outdoors, drink plenty of fluids and keep shirts on to avoid dehydration and sunburn.

##### *Using Joint Compounds*

Wear protective gloves when handling compounds or chemicals from containers labeled "Flammable," "Toxic," "Caustic" or "Poisonous" and wash your hands after removing the gloves.

Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each joint compound or chemical product used in your workplace.

Each time you use your gloves, wash your gloves before removing them using cold tap water and normal hand washing motion. Always wash your hands after removing the gloves.

Do not use joint/filler compounds or chemicals from unlabeled containers.

Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic."

Always use goggles and gloves when handling joint/filler compounds or chemicals labeled "Corrosive" or "Caustic."

##### *Applying Finishes: Plaster, Coquina, Popcorn, or other*

Do not smoke or eat while performing stucco or "popcorn" finishes.

Stand clear of mixing or blowing operations.

Do not stand, work, or operate pneumatic equipment such as blowers with hoses within three feet of any unprotected roof opening or within five feet of any unprotected roof edge.

#### Job Site Safety

Do not walk on or under partially demolished walls or floors.

Stop working outdoors and seek shelter during lightning storms.

Walk around or duck under protruding framing or ductwork and limbs.

Do not walk on fallen trees; walk on the ground.

Keep combustible liquids stored and covered in approved containers.

#### Personal Protective Equipment (PPE)

Wear your safety glasses when mixing plaster ingredients and additives, applying spackling, finishing ceilings, or sanding.

PPE's must be kept in a clean and sanitary condition. ALL PPE must be proper size and fit. ALL defective PPE must be discarded and not used.

MSB will inspect all employee provided PPE's to ensure safe use.

Wear dust mask or respirator when emptying sacks of dry material such as additives for fireproofing or plaster ingredients.

Use lifelines, safety harnesses, or lanyards when you are working higher than 6 feet off the ground.

Wear safety glasses while plastering, applying mud, or sanding.

Wear safety goggles when using power tools or when applying a finishing material.

Employees will be trained on the proper selection, use and care of PPE's. Retraining will be done as necessary. All training will be documented

#### Manual Stacking and Handling Material

Store all wallboard flat.

Do not store boards vertically, this practice will damage the edges creating unstable stacks.

Stand each board vertically on its side as close to the edge of the pile as possible, tilt the board toward the stack, and let the board drop freely on top of the stack.

Do not allow boards to overhang more than an inch. Align flush all boards, to keep the boards from becoming unstable and topple on someone while restacking.

Use a co-worker to assist handling the boards when stocking. coordinate and communicate your movements with those of your co-worker.

#### Stacking Material (Sheet rock, gypsum, foam boards, etc.)

When stacking panels by hand, position the panels sideways slightly in front of you, so you do not have to reach over your head or twist your body to lift these materials.

Position panels to lean flat against a wall and do not wobble or slide.

Push and slide panels along their edge or get assistance from a co-worker.

#### ELECTRICIANS

##### Hot Line Safety

1. Clean all protective line equipment after each use, prior to storage.
2. Wear rubber gloves or use hot sticks when removing tree branches, limbs, or similar objects from contact with high voltage lines, panels, or equipment.
3. Do not wear rubber protective gloves while climbing or descending a pole.
4. Wear 100% cotton or flame resistant shirts or jumpers (with sleeves rolled down) and protective hats when working on or near live parts, lines, and panels or when climbing poles.
5. Wear body belts with straps or lanyards when working at an elevated position (poles, towers, etc.).
6. Visually inspect body belts and straps before use for defects, wear, and damage.
7. When working with lines of 600 volts or more:
  - Wear rubber gloves or use hot sticks when placing protective equipment on/around energized voltage conductors.
  - Do not work on the line that is removed from service until the line is cleared, tagged, tested, and grounded.
  - Treat bare wire communication conductors on structures as energized lines unless they are protected by insulated conductors.
8. Treat bare wire communication conductors on power poles and structures as energized lines (with voltages in excess of 600 volts) unless the conductors are protected by insulating materials.
9. Do not remove any ground until all employees are clear of the temporary grounded lines or equipment.
10. After a capacitor has been disconnected from its source of supply, wait five minutes before short-circuiting and grounding it.

11. Do not contact the terminals, jumpers, or line wires connected directly to capacitors until the capacitors have been short-circuited and/or grounded.
12. Visually inspect and wipe down all hot line tools each day before use.
13. Do not wear rubber gloves with protectors while using hot line tools.
14. Do not use defective hot line tools. Mark them as defective and turn them in for repair or replacement.

#### Stringing/Removing Deenergized Conductors

1. Keep conductors that are being strung in or removed under positive control to prevent accidental contact with energized circuits.
2. Do not exceed the load rating for stringing lines, pulling lines, sock connections or load-bearing hardware and accessories.
3. Do not use defective pulling lines or defective accessories. Mark the defective items and turn them in for repair or replacement.
4. Do not use conductor grips on wire ropes unless the grips are designed for that particular purpose.
5. If an existing line that crosses over a conductor is to be deenergized, ground the line on both sides of the crossing or treat the conductor being crossed as energized.

#### Bus/Bus Room Safety

1. Do not enter or work in the bus room alone.
2. Do not leave the bus room doors open.
3. Do not carry any tools or materials above your waist while in the bus room.
4. Do not work on any bus, bus structure, cable, or disconnect switch unless it is grounded.

#### General Electrical Device/Fixture Installation Safety

1. Assume all electrical wires as live wires.
2. Turn the main switch to "Off" before removing and replacing power fuses.
3. Do not wear watches, rings or other metallic objects that could act as conductors of electricity around electrical circuits.
4. Before leaving the job, test insulators, and equipment to ensure they are free from defects.
5. Do not work near any circuit that is in service without first installing barricades approved by your supervisor.
6. Do not touch field brushes or a synchronous motor until the motor is up to synchronous speed and the field switch is closed.

#### PAINTING PERSONNEL

##### Painting Safety

1. Store rags that have oil or paint on them in closed metal containers labeled "oily rags".
2. Press the pressure relief valve on painting canisters and painting guns prior to disconnecting them.
3. Do not store food or eat where spray painting is being performed.
4. Close the lids of containers of paint and thinner tightly after each use or when not being used.

#### PLUMBERS

##### General Installation Rules & Guidelines

1. Do not begin working until barricades, warning signs or other protective devices have been installed to isolate the work area from local traffic.
2. Do not walk under partially demolished walls or floors.
3. Stop working outdoors and seek shelter during lightning storms.



4. When working outside, keep shirts on to avoid dehydration and sunburn.
5. Drink plenty of clear liquids during your breaks.
6. If you discover a wasp nest or bee hive while installing or servicing equipment, use the long distance aerosol insecticide labeled "Wasp and Bee Insecticide" to spray the nest. Test with the stick or pole once again to ensure that all bees/wasps are gone before continuing work.
7. Seek first aid immediately if bitten or stung by wasps or bees. Follow First Aid Procedures.
8. Do not handle caterpillars or other insects with your bare hands.
9. Do not use a metal ladder within 50 feet of electrical power lines.
10. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
11. Do not stand on sinks, toilets, or cabinets; use a stepladder.
12. Do not work on open sided floors, elevated walkways, or elevated platforms if there are 1 no guardrails in place.
13. Do not handle hot items such as hot water heaters or water/steam lines with your bare hands; use cloth gloves.
14. Open the gate valve to release the pressure from the steam lines and turn off the boiler before servicing piping equipment.

## ROOFING PERSONNEL

### Housekeeping

1. Do not place materials such as tools, boxes, buckets, or trash in walkways and passageways.
2. Do not kick objects out of your pathway; pick them up or push them out of the way.
3. Do not throw matches, cigarettes or other smoking materials into trash bins.
4. Do not store or leave items on stairways.
5. Do not block or obstruct stairwells, exits, or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
6. Do not leave loose tools, lunch boxes or other items on rooftop. Return tools to their storage places after use.
7. Keep walking surfaces of elevated working platforms, such as scaffolds and equipment access pads on roofs, clear of tools and materials that are not being used.
8. Remove protruding nails or bend them down into the lumber by using a claw hammer.
9. Do not use gasoline for cleaning purposes.
10. Sweep up scraps and debris from around equipment such as drill presses, punches, or power shears by using a broom and a dustpan.
11. Do not drop debris through roof top openings unless the area below has been barricaded at least 6 feet out from all edges of the opening.
12. Do not use gasoline for cleaning purposes.

### Lifting Procedures

#### General

1. Plan the move before lifting; remove obstructions from your chosen pathway.
2. Test the weight of the load before lifting by pushing the load along its resting surface.
3. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, dollies, pallet jacks, and carts or get assistance from a co-worker.
4. If assistance is required to perform a lift, coordinate and communicate your movements with those of your co-worker.
5. Never lift anything if your hands are greasy or wet.
6. Wear protective gloves approved by your supervisor when lifting objects with sharp corners or jagged edges.
7. Do not lift an object from the floor to a level above your waist in one motion. Set the load down on a table or bench and then adjust your grip before lifting it higher.

#### When Lifting

1. Position your feet 6 to 12 inches apart with one foot slightly in front of the other.
2. Face the load.
3. Bend at the knees, not at the back.
4. Keep your back straight.
5. Get a firm grip on the object with your hands and fingers. Use handles when present.
6. Perform lifting movements smoothly and gradually; do not jerk the load.
7. Hold objects as close to your body as possible.
8. If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.
9. Set down objects in the same manner as you picked them up, except in reverse.
10. Slide materials to the end of the tailgate before attempting to lift them off a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

#### Ladder and Step Ladder Safety

1. Do not use ladders that have loose rungs, cracked or split side rails, missing rubber footpads or are otherwise visibly damaged.
2. Keep ladder rungs clean of grease. Remove buildup of material such as dirt, debris, or mud.
3. When performing work from a ladder, face the ladder and do not lean backward or sideways from the ladder.
4. Do not stand on the top two rungs of any ladder.
5. Do not stand on a ladder that wobbles or that leans to the left or right.
6. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
7. One person shall be on the ladder at a time.
8. Do not use a ladder as a horizontal platform.
10. Secure the ladder in place by having another employee hold it.
12. Face the ladder when climbing up or down.
13. Maintain a three-point contact by keeping both hands and one foot or both feet and one hand on the ladder at all times when climbing up or down.
14. Do not carry items in your hands while climbing up or down a ladder.
15. Read and follow the manufacturer's instructions label affixed to the ladder if you are unsure how to use the ladder.
16. Do not use a metal ladder on rooftops or within 50 feet of electrical power lines.
17. Do not jump from rooftops, chimneystacks, or ladders.
18. Do not use scrap lumber, bundles of shingles, or any other types of makeshift stacks or bundles of building materials as improvised climbing devices.

#### Personal Protective Equipment

1. Do not drill holes in or paint your hard hat.
2. Do not wear hard hats that are dented or cracked.
3. Wear the chemical goggles when using, applying, or handling chemical liquids or powders from containers labeled "Caustic" or "Corrosive."
4. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear your earplugs or earmuffs in areas posted "Hearing Protection Required."
6. When handling hot tar, wear clothing made of cotton or non-synthetic fibers. Wear long sleeve shirts, long pants, and gloves.
7. Use lifelines, safety harnesses, or lanyards when you are working higher than 6 feet off the ground.
8. Wear safety goggles while reaming, drilling, welding or cutting metal.

9. Wear leatherwork gloves when handling rough, sharp-edged, or abrasive material such as chains, cables ropes, or slings. Wear snug fitting gloves with cuffs that will extend up under the buttoned shirtsleeves.
10. Wear laced high-top work boots at all times except when working on roofs steeper than 4:12 or when applying special roofing materials that require other types of shoes.
11. Wear your hard hats at all times when someone is working above you.
12. Wear safety goggles when tearing off roofs, when using power tools or when installing coal tar pitch roofing material.
13. Use face cream when working with coal tar pitch.
14. Do not take work clothes home when exposed to coal tar pitch volatiles.
15. Change your work clothes before leaving the job site.
16. Place work clothes contaminated with coal tar pitch volatiles in a closed labeled container approved by your employer.

#### When Respirators are Provided

1. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
2. Do not wear contact lenses when wearing a respirator.
3. Clean and return respirators to their carrying cases or cartons and store them in your locker or in a designated storage area as instructed by your employer when the work is completed.
4. Only use the respirator that has been fitted and issued to you.
5. Use your respirator when working with coal tar pitch.

#### Infection Control

1. Wash your hands after removing your gloves with soap or mild detergent and water before eating, smoking, using the toilet, or any areas of the body that may have contacted these volatiles at the end of each workday.
2. Use a mechanic's cream hand cleaner such as "Go-Jo" or "Humus" where water is not readily available.

#### Scaffolding

1. Follow the manufacturer's instructions when erecting the scaffold. Scaffolds will be examined prior to use by a supervisor or management. If found defective, scaffolds will be taken out of service and tagged.
2. All employees are provided training on scaffolds by presenting the material below and additional as necessary. Retraining will be when determined necessary.
2. Do not work on scaffolds outside during stormy or windy weather.
3. Do not climb on scaffolds that wobble or lean to one side.
4. Initially inspect the scaffold prior to mounting it. Do not use a scaffold if any pulley, block, hook, or fitting is visibly worn, cracked, rusted, or otherwise damaged. Do not use a scaffold if any rope is frayed, torn, or visibly damaged.
5. Do not use any scaffold tagged "Out of Service."
6. Do not use unstable objects such as bundles of shingles, steel drums or cans, crates, loose brick or concrete blocks to support scaffolds or planks.
7. Do not work on platforms or scaffolds unless they are fully planked.
8. Do not use a scaffold unless guardrails and all flooring are in place.
9. Do not use strips of felt or any building material as a makeshift guardrail. Utilize guardrail system as outlined per manufacturers' instructions.
10. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
11. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the mid-rail and the toe board or planking.
12. Use your safety belts and lanyards when working on scaffolding at a height of 10 feet or more

above ground level. Attach the lanyard to a secure member of the scaffold.

12. Do not climb the cross braces for access to the scaffold. Use the ladder.
13. Do not jump from, to or between scaffolding.
14. Do not slide down cables, ropes or guys used for bracing.
15. Keep both feet on the decking. Do not sit or climb on the guardrails.
16. Do not lean out from the scaffold. Do not rock the scaffold.
17. Keep the scaffold free of roofing material scraps, loose tools, and other obstructions.
18. Do not throw anything "overboard" unless a spotter is available. Use the debris chutes or lower things by hoist or by hand.
19. Do not move a mobile scaffold if anyone is on the scaffold.
20. Prior to using a rolling scaffold, chock the wheels with wheel blocks and lock them by using your foot to depress the wheel lock.

Lifting Equipment (chains, cables, ropes, slings, etc.)

1. Do not use chain slings if links are cracked, twisted, stretched, or bent.
2. Fabricate all wire in wire rope slings by using thimbles; do not form eyes by using wire clips or knots.
3. Do not shorten slings by using makeshift devices such as knots or bolts.
4. Do not use a kinked chain.
5. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
6. Do not place your hands between the sling and its load when the sling is being tightened around the load.
7. Wear work gloves when handling rough, sharp-edged, or abrasive material such as chains, cables, ropes, or slings.
8. Do not alter or remove the safety latch on hooks. Do not use a hook that does not have a safety latch or if the safety latch is bent.
9. Lift the load from the center of the hooks, not from the point.
10. Do not use a ground-operated hoist in which the safety latch on the hook has been removed, is bent, or is otherwise visibly damaged.

Forklift Safety

General

1. Only authorized and trained personnel are allowed to operate the forklifts.
2. Apply the foot brake and shift gears to neutral before turning the key.
3. Do not use bare forks as a man-lift platform.
4. Steer the forklift wide when making turns.
5. Sound the forklift horn when approaching blind corners, doorways, or aisles to alert other operators and pedestrians.

Lifting

1. Do not exceed the lift capacity of the forklift. Read the lift capacity plate on the forklift if you are unsure.
2. Follow the manufacturer's guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load an inch or two to test for stability; if the rear wheels are not in firm contact with the floor, take a lighter load or use a forklift that has a higher lift capacity.
4. Do not raise or lower a load while you are enroute. Wait until you are in the loading area and have stopped before raising or lowering the load.
5. After picking up a load, adjust the forks so that the load is tilted slightly backward for added stability.

6. Raise the forks an additional two inches to avoid hitting or scraping the ramp surface as you approach the ramp.
7. Do not drive the forklift while people are on the attached man-lift platform.
8. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
9. Drive a loaded forklift in a forward gear when going up a ramp. Upon approaching the ramp, raise the forks an additional two inches to avoid hitting or scraping the ramp surface.
10. Do not attempt to turn the forklift around on a ramp.
11. Do not use a gear for the opposite direction of travel as a means to slow down or stop the forklift.
12. Lower the mast completely, turn the engine off, and set the parking brake before leaving your forklift.

#### Specific Operations

##### Picking up a Load

1. "Square up" on the center of the load and approach it straight on with the forks in the travel position.
2. Stop when the tips of your forks are about a foot from the load.
3. Level the forks and slowly drive forward until the load is resting against the backrest of the mast.
4. Lift the load high enough to clear whatever is under it.
5. Back up about one foot, and then slowly and evenly tilt the mast backwards to stabilize the load.

##### Putting a Load Down

1. "Square up" and stop about one foot from the desired location.
2. Level the forks and drive to the loading spot.
3. Slowly lower the load to the floor.
4. Tilt the forks slightly forward so that you do not hook the load.
5. When the path behind you is clear of obstructions, back straight out until the forks have cleared the pallet.

#### Stacking One Load on Top of Another

1. Stop about one foot away from the loading area and lift the mast high enough to clear the top of the stack.
2. Slowly move forward until the load is squarely over the top of the stack.
3. Level the forks and lower the mast until the forks no longer support the load.
4. Look over both shoulders for obstructions and back straight out if the path is clear.

#### Job Site Safety

1. Do not walk under partially demolished walls or floors.
2. Stop working outdoors and seek shelter during lightning storms.
3. Do not begin working until barricades, warning signs or other protective devices have been installed to isolate the work area.
4. Do not throw or toss debris outside barricaded areas.
5. Walk around or step over holes, rocks, and roots in your pathway.
6. Stay clear of all trucks, forklifts, cranes, and other heavy equipment when in operation.
7. Do not approach any heavy equipment until the operator has seen you and has signaled to you that it is safe to approach.
8. Walk around or duck under protruding branches and limbs.
9. Do not walk on fallen trees; walk on the ground.

10. Do not clear brush by hand within 100 ft. of heavy equipment operations.
11. Keep combustible liquids stored and covered in approved containers.

#### Vehicular Safety (trucks and all terrain vehicles).

##### General

1. Drive on the graded roadways that have been leveled for this purpose.
2. Turn on low-beam headlights when driving on the site.
3. Drive up the slope or down the slope, not across the slope.
4. Hold onto vehicle when stepping out of it onto loose ground, holes, or rocks.
5. Tools and materials shall be secured to prevent movement when transported in the same compartment with employees.
6. Do not exceed the maximum number of people for which the vehicle is designed to transport.
7. Do not operate a loaded vehicle or load it, by means of cranes, power shovels, loaders, or similar equipment, if the vehicle does not have a cab shield and/or canopy to protect you from shifting or falling materials.
8. Do not carry extra fuel on any vehicle except in a properly mounted fuel tank approved by your employer.

##### Fueling Vehicles

1. Turn the vehicle off before fueling.
2. Do not smoke while fueling a vehicle.
3. Wash hands with soap and water if you spill gasoline on them.

##### Driving Rules

1. Shut all doors and fasten your seat belt before moving the vehicle.
2. Obey all traffic patterns and signs at all times.
3. Maintain a three point contact using both hands and one foot or both feet and one hand when climbing into and out of vehicles.
4. Drive up the slope or down the slope not across the slope.

##### Trailer Safety

1. Set the parking brake in the towing vehicle and use wheel blocks to chock the wheels of the trailer before removing the kettle from the trailer.
2. Permit no one to ride in the trailer.
3. Use ramps to load and unload kettles and equipment from the trailer.
4. Take slow, wide turns when towing trailers.
5. Do not exceed the load capacity as posted on the trailer door of the trailer.
6. Do not place all the heavy equipment on one side of the trailer.
7. Secure equipment and fuel tanks to the vehicle with chains or straps to eliminate or minimize shifting of the load.
8. Do not mount or dismount equipment on the traffic side.

#### Hand/Power Tool Safety

##### General

1. Use tied off containers to keep tools from falling off scaffolds and other elevated work platforms.
2. Carry all sharp tools in a sheath or holster.
3. Tag worn, damaged, or defective tools "Out of Service" and do not use them.
4. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.

5. Do not use impact tools such as hammers, chisels, punches, or steel stakes that have mushroomed heads.
6. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, aviation snips, scrapers, chisels or files in your pocket unless the tool or your pocket is sheathed.
7. Do not perform "make-shift" repairs to tools.
8. Do not use "cheaters" on load binders or "boomers."
9. Do not carry tools in your hand when you are climbing. Carry tools in tool belts or hoist the tools to the work area using a hand line.
10. Do not throw tools from one location to another, from one employee to another or from scaffolds or other elevated platforms.
11. Only transport hand tools in toolboxes or tool belts. Do not carry tools in your clothing.

#### Hammers

1. Use a claw hammer for pulling nails.
2. Do not strike nails or other objects with the "cheek" of the hammer.
3. Do not strike a hardened steel surface, such as a cold chisel, with a claw hammer.
4. Do not strike one hammer against another hammer.
5. Do not use a hammer if your hands are oily, greasy, or wet.
6. Do not use a hammer as a wedge, a pry bar or for pulling large spikes.

#### Snips

1. Wear safety glasses or safety goggles when using snips to cut materials.
2. Wear work gloves when cutting materials with snips.
3. Do not use straight cut snips to cut curves.
4. Keep the blade aligned by tightening the nut and bolt on the snips.
5. Do not use snips as a hammer, screwdriver, or pry bar.
6. Engage the locking clip on the snips after use.

#### Screwdrivers

1. Always match the size and type of screwdriver blade to fit the head of the screw.
2. Do not hold the work piece against your body while using a screwdriver.
3. Do not put your fingers near the blade of the screwdriver when tightening a screw.
4. Use an awl, drill or a nail to make a starting hole for screws.
5. Do not force a screwdriver by using a hammer or pliers on it.
6. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
7. Do not carry a screwdriver in your pocket.
8. Do not use a screwdriver if your hands are wet, oily, or greasy.
9. When using a spiral ratchet screwdriver, push down firmly and slowly.

#### Powder Actuated Tools

1. Wear impact resistant safety goggles or face shields when operating any powder actuated tools.
2. Do not attempt to fasten through a pre-drilled hole unless the powder actuated tool has a hole locator.
3. Keep your head and body behind the powder-actuated tool when firing it.
4. Before using powder actuated tools do not alter, bypass or remove the shield or guard at the muzzle end of the powder-actuated tool.
5. Do not load a powder-actuated tool until you are ready to fire it.

#### Hydraulic/Pneumatic Tools

1. Do not point a compressed air hose at bystanders or use it to clean your clothing.
2. Lock and/or tag tools "Out of Service" to prevent usage of the tool.
3. Do not use tools that have handles with burrs or cracks.
4. Do not use compressors if their belt guards are missing. Replace belt guards before use.
5. Turn the tool "off" and let it come to a complete stop before leaving it unattended.
6. Disconnect the tool from the airline before making any adjustments or repairs to the tool.

#### Heat Exhaustion/Sun Exposure

- Keep shirts on to avoid dehydration and sunburn.

#### Knives/Sharp Instruments

1. When handling knife blades and other cutting tools, direct sharp points and edges away from you.
2. Cut in the direction away from your body when using knives.
3. Use the knife that has been sharpened; do not use knives that have dull blades.
4. Use knives for the operations for which they are made.
5. Do not use knives that have broken or loose handles.
6. Do not use knives as screwdrivers, pry bars, or can openers.
7. Do not pick up knives by their blades.
8. Carry knives with their tips pointed towards the ground.
9. Do not carry knives, scissors or other sharp tools in your pockets or an apron unless they are first placed in their sheath or holder.
10. Do not attempt to catch a falling knife.
11. Store knives in knife blocks or in sheaths after using them.

#### Electrical Safety

1. Do not use power equipment or tools on which you have not been trained.
2. Keep power cords away from the path of drills, metal shears, power presses, grinders, and other tools or equipment that can splice or cut the power cord.
3. Do not use cords that have splices, exposed wires, or cracked or frayed ends.
4. Do not carry plugged in equipment or tools with your finger on the switch.
5. Do not carry equipment or tools by the cord.
6. Disconnect the tool from the outlet by pulling on the plug, not the cord.
7. Turn the tool off before plugging or unplugging it.
8. Do not leave tools that are "On" unattended.
9. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.
10. Do not operate spark inducing tools such as grinders, drills, or saws near containers labeled "Flammable" or in an explosive atmosphere such as a paint spray booth.
11. Turn off the electrical tool and unplug it from the outlet before attempting repairs or service work. Tag the tool "Out of Service."
12. Do not use extension cords or other three pronged power cords that have a missing prong.
13. Do not use an adapter such as a cheater plug that eliminates the ground.
14. Do not plug multiple electrical cords into a single outlet.
15. Do not run extension cords through doorways, through holes in ceilings, walls, or floors.
16. Do not stand in water or on wet surfaces when operating power hand tools or portable electrical appliances.
17. Do not use a power hand tool to cut wet or water soaked building materials.
18. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
19. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
20. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut,



improperly spliced, or damaged power cord.

21. Do not operate a power hand tool or portable appliance if a prong from the three-pronged power plug is missing or has been removed.

22. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.

23. Do not operate a power hand tool or portable appliance while holding a part of the metal casing or while holding the extension cord in your hand. Hold all portable power tools by the plastic handgrips or other nonconductive areas designed for gripping purposes.

## Hazardous Materials

### When Using Chemicals to Seal Metals

1. Wear protective gloves when handling chemicals from containers labeled "Flammable," "Toxic," "Caustic" or "Poisonous" and wash your hands after removing the gloves.

2. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product used in your workplace.

3. Each time you use your gloves, wash your gloves before removing them using cold tap water and normal hand washing motion. Always wash your hands after removing the gloves.

4. Do not use chemicals from unlabeled containers and unmarked cylinders.

5. Do not perform "hot work" such as welding, metal grinding, or other spark producing operations within 50 feet of containers labeled "Flammable" or "Combustible."

6. Do not drag containers labeled "Flammable."

7. Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic."

8. Always use chemical goggles and a face shield before handling chemicals labeled "Corrosive" or "Caustic."

### Power Hoist Safety

1. Use manufacturer approved counter weights to secure the hoist. Do not use roofing materials such as rolls of felt or bundles of shingles,

2. Do not exceed the manufacturer's recommended load capacity limits.

3. Only trained personnel, approved by the employer, are allowed to operate a power hoist.

4. Use the power hoist in an area that permits the operator to stand clear of the load at all times.

5. Use safety hooks or shackles to attach the load whenever possible.

6. Use 'tag lines' to control the load when necessary.

7. Keep your fingers and clothing clear of hoist machinery.

8. Do not attempt adjustments while the hoist is running.

## Portable Welding Equipment

1. Wear a welding helmet or welding goggles during welding operations.

2. Do not use personal or employee-owned power tools and portable appliance while at work.

3. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.

4. Insulated work gloves are required for all welders when using welding equipment.

5. Do not use welding apparatus if power plug is cut, frayed, split or otherwise visibly damaged or modified.

6. When replacing power plugs and cords of welding apparatus, always check to ensure that the ground wire is connected and the power plug prongs are not worn off, allowing the plug to be inserted backward.

## Compressed Gas Cylinders

### Storage and Handling

1. Do not handle oxygen cylinders if your gloves are greasy or oily.

2. Store all cylinders in the upright position.
3. Place valve protection caps on gas cylinders that are in storage or not in use.
4. Do not lift cylinders by the valve protection cap.
5. Do not store compressed gas cylinders in areas where they can come in contact with chemicals labeled "Corrosive."
6. Place cylinders on a cradle, sling board, pallet or cylinder basket to hoist them.
7. Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.
8. Do not use a flame to check for propane cylinder leak, use a leak or monitor detector.

#### Use of Cylinders

1. Do not use dented, cracked, or other visually damaged cylinders.
2. Use only an open ended or adjustable wrench when connecting or disconnecting regulators and fittings.
3. Do not transport cylinders without first removing regulators and replacing the valve protection caps.
4. Close the cylinder valve when work is finished, when the cylinder is empty or at any time, the cylinder is moved.
5. Do not store oxygen cylinders near fuel gas cylinders such as propane or acetylene or near combustible material such as oil or grease.
6. Stand to the side of the regulator when opening the valve.
7. If a cylinder is leaking around a valve or a fuse plug, move it to an outside area away from where work is performed and tag it to indicate the defect.
8. Do not hoist or transport cylinders by means of magnets or choker slings.
9. Do not use compressed gas to clean the work area, equipment, or yourself.
10. Do not remove the valve wrench from acetylene cylinders while the cylinder is in use.
11. Open compressed gas cylinder valves slowly. Open fully when in use to eliminate possible leakage around the cylinder valve stem.
12. Purge oxygen valves, regulators, and lines before use.

#### Torch on Applications

1. "Blow Out" hoses before attaching the torch.
2. Inspect hoses and torches before use. Replace damaged, burned, worn, or leaking parts.
3. Use a pressure gauge on every regulator. Do not use an adjustable regulator with a higher-pressure range than the original regulator that came with the torch.
4. Never face the gauge while opening the cylinder valve.
5. Before lighting a torch, purge the hose, adjust the working pressures, then use a friction lighter to ignite the gases. Do not use matches or a cigarette lighter.
6. Do not use oil, grease or other lubricants on the regulator.
7. When shutting off the torch, close the gas cylinder valve first and let the remaining gas burn out of the hose before closing off the torch valve.
8. Never overfill a gas cylinder. It could explode.
9. Use only hoses listed for liquid petroleum (LP) gas.
10. Use soap solution to test for gas leaks before lighting.
11. Visually check and ensure that the flow of gas through the regulator is flowing in the proper direction. Directional flow is stamped on the regulator.
12. To keep 'frosting' from occurring, increase the size of the bottle or cylinder.
13. Secure propane tanks in an upright position and place them at least 10 feet from the open flame.
14. Keep non-applicators at least 10 feet from the flame.
15. Keep vent in pressure regulator clear at all times.
16. When shutting off the torch, close the propane cylinder valve first and let the remaining gas

burn out of the hose.

17. Do not leave a lighted torch unattended.
18. Do not heat a cylinder to increase pressure.
19. Place a fire extinguisher near you, but away from the torch and other parts of LP gas equipment, when performing torch on operations.
20. Do not lay an operating torch over the edge of a roof.
21. Do not use a trowel as a torch stand.
22. Do not lay an operating torch to rest on a gas cylinder. If there is a gas leak in the cylinder area, there could be a fire.

#### Coal Tar/Asphalt Applications

1. Do not smoke or eat while performing tar-roofing work.
2. Stand clear of hot asphalt when it is being dumped out of the kettle.
3. Do not stand, work, or operate equipment such as felt laying machines or mechanical moppers within three feet of any unprotected roof opening or within five feet of any unprotected roof edge.

#### Single-Ply Roofing

- Wear respirators when hot air welding PVC or when performing adhesive welding procedures.

#### Conveyors

1. Do not climb on conveyor equipment.
2. Do not ride on any conveyors.
3. When using a belt driven conveyor to load a trailer bed, the person inside the trailer shall give verbal commands to the person loading the conveyor.

#### JOB-SPECIFIC RULES

##### Roof Felt Slitter

1. Replace the guards before starting the machine, after making adjustments and after making repairs to a machine.
2. Do not remove, alter, or bypass any safety guard or device when operating the machine.
3. Read and obey safety warnings posted on the machine.
4. Do not wear loose clothing, jewelry, or neckties when operating machine.
5. Long hair must be contained under a hat or hair net, regardless of gender.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, disconnect the power before clearing the jam.
7. Report any missing machine or tool guard immediately to your supervisor.

##### Vehicle Loading

1. Plan the move before loading; ensure that you have an unobstructed pathway and that the vehicle is parked as close to the equipment or material as possible.
2. Keep bumpers/tailgates free of grease, water, etc.; remove buildup of material such as dirt, mud, etc.
3. Use lifting aids such as dollies, pallet jack, and forklift or get assistance from a co-worker to place dock plate resting between loading dock and truck surface.
4. If equipment or material that is to be loaded into truck is too heavy or bulky, use lifting aids such as hand trucks, dollies, pallet jacks and carts, or get assistance from co-workers.
5. Secure all equipment and material within the truck to eliminate or reduce movement.

##### Crane Truck or Boom Conveyor Truck

1. Only trained and employer authorized personnel are permitted to operate the crane truck or

boom conveyor.

2. Park on firm level surface, place the vehicle in neutral, and apply the emergency brake.
3. If the truck is equipped with an audible back up warning device, engage the alarm before backing into a location.
4. If the truck is equipped with mechanical, hydraulic, or pneumatic jacks, braces or stabilizers engage such, prior to engaging the swing conveyor.
5. Do not engage the swing conveyor if there are overhead obstructions in the way. Allow sufficient distance for wind gust that would cause the conveyor to contact power lines.
6. Never climb the conveyor to gain access to the roof, use a ladder.
7. Do not load supplies onto a roof if there are unguarded openings such as skylights.

## KETTLEMEN

### General

1. Do not leave kettles or tankers unattended while they are being fired.
2. Take breaks in shaded areas.
3. Do not smoke or eat while performing asphalt work.
4. Stand clear of hot asphalt when it is being dumped out of the kettle.
5. Do not place a pumper or agitator into kettles or tankers.

### Personal Protective Equipment

1. Wear face shields when loading and withdrawing hot liquid asphalt from a kettle or tanker.
2. Wear your personal protective equipment such as goggles, gloves, and respiratory protection when operating the kettle.
3. Do not wear contact lenses when operating the kettle.

### Job Site Safety

1. Do not walk under partially demolished walls or floors.
2. Stop working outdoors and seek shelter during lightning storms.
3. Do not begin working until barricades, warning signs or other protective devices have been installed to isolate the work area.
4. Do not throw or toss roofing scraps such as shingles, rubber roofing material, or any other debris outside barricaded areas.
5. Walk around or step over holes, rocks, and roots in your pathway.
6. Stay clear of all trucks, forklifts, cranes, and other heavy equipment when in operation.
7. Do not approach any heavy equipment until the operator has seen you and has signaled to you that it is safe to approach.
8. Walk around or duck under protruding branches and limbs.
9. Do not walk on fallen trees; walk on the ground.
10. Do not clear brush by hand within 100 ft. of heavy equipment operations.
11. Keep combustible liquids stored and covered in approved containers.

### Job Site Waste Management

It is MSB's intention to be aware of the environmental concerns of waste that the jobsite can create. While each job can have different requirements it is MSB's practice to follow the listed of common practices below:

1. Every jobsite MUST have a proper waste receptacle to discard trash and scrap materials
2. If recyclable materials are present and to be discarded, a separate container will be provided if the quantity is substantial.
3. ALL LIQUIDS, OILS, GASES, DIESEL FUEL OR CHEMICALS WILL NOT BE ALLOWED TO BE DISCARDED IN NORMAL TRASH OR RECYCLABLE CONTAINERS. THESE ITEMS MUST BE KEPT IN AN APPROVED CONTAINER AND BROUGHT BACK TO THE SHOP SO THE

COMPANY CAN DISPOSE OF PROPERLY.

4. Burning of construction waste IS NOT PERMITTED.
5. It is MSB intention to ALWAYS be mindful of the environment and be aware of opportunities to participate in recycle opportunities.
6. Special care and consideration must be taken when handling glass, metal, wood and any other scrap material. MSB employees must wear the proper PPE for each situation.

## **BLOODBORNE PATHOGEN EXPOSURE**

A. Scope This section defines minimum safety standards for personnel who are trained in first aid/cardiopulmonary resuscitation procedures as responders. It is MSB intention to train all MSB employees on Bloodborne Pathogens.

B. Purpose First aid/CPR responders are deemed to have a reasonably anticipated exposure to blood, or other potentially infectious matter in the course of rendering first aid/CPR. It is the purpose of this section is to establish the means and methods to protect against such exposure.

C. Reference WAC 296-823

D. Infections

HBV—Hepatitis means “inflammation of the liver”. Hepatitis B virus is extremely contagious and is the major infectious blood borne hazard faced on the job. It infects approximately 8,700 health care workers a year, resulting in more than 400 hospitalizations and 200 deaths. The incubation period after exposure is from 1 to 6 weeks before onset of symptoms. At the onset flu-like symptoms occur, becoming so severe hospitalization may be required; or there may be no symptoms at all. Yet blood, saliva and other body fluids may be infectious. Urine will become dark in color, followed by jaundice (yellow color to eyes and skin). The liver becomes enlarged and in very serious cases it will become cancerous.

HIV—The Human Immune Deficiency Virus (AIDS), attacks the body’s immune system. Currently there is no vaccine to prevent infection. A person may carry the virus without developing symptoms for several years. They may suffer flu-like symptoms, fever, diarrhea and fatigue. They may develop AIDS-related illnesses including neurological problems, cancer and other opportunistic infections.

MRSA (Methicillin-resistant Staphylococcus aureus) - MRSA infection is caused by Staphylococcus aureus bacteria — often called “staph”. MRSA stands for methicillin-resistant Staphylococcus aureus. It is a strain of staph that is resistant to the broadspectrum antibiotics commonly used to treat it. MRSA can be fatal.

E. Modes of Transmission

1. HBV and HIV are transmitted in the same ways in the work place, by body fluids such as saliva, semen, vaginal secretions and other fluids that contain blood. These fluids may enter your body through a variety of means including an accidental injury with a sharp object contaminated with infectious material. Open cuts, nicks and skin abrasions, even a rash or acne as well as the mucous membranes of your mouth, nose or eyes can become a path of entry to your body. Indirect transmission can also occur from touching a contaminated object or surface and transferring the infectious material to your mouth, nose, skin, or eyes. HBV can survive on environmental surfaces dried at room temperatures for at least one week. Make sure after an accident that the area is

thoroughly cleaned and disinfected.

2. MRSA Staph infections Staph bacteria are normally found on the skin or in the nose of about one-third of the population. If you have staph on your skin or in your nose but are not sick, you are said to be "colonized" but not infected. Healthy people can be colonized and have no ill effects. However, they can pass the germ to others. Staph bacteria are generally harmless unless they enter the body through a cut or other wound, and even then they often cause only minor skin problems in healthy people. However, staph infections can cause serious illness. This most often happens in older adults and people who have weakened immune systems, usually in hospitals and long term care facilities. However, in the past several years, serious infections have been occurring in otherwise healthy people in the community, for example athletes who share equipment or personal items.

F. Exposure Control Plan: The risks of blood borne diseases in the work place are quite serious, yet there are effective ways of minimizing them. A good place to start is your employers written exposure control plan. This plan should identify the employees covered by the standard and the measures your company intends to take to minimize the risks. In the work setting, the persons with the highest risks are the medical personnel and safety personnel. Next in line would be first responders and anyone else who might be on the scene of an accident. The Exposure Control Plan will be available for all employees review.

#### G. Methods of Control

1. First treat all situations where there is blood or body fluids containing visible blood as if it were contaminated with an infectious disease. This is known as Universal Control.

2. Isolating or removing hazards through the use of technology and devices is known as Engineering Control. e.g., puncture proof containers for used needles or minimizing exposure to sharp or jagged objects, etc.

3. Alterations in the manner in which tasks are performed in an effort to reduce exposure are known as Work Practice Controls. Wash your hands as soon after exposure with a non-abrasive soap and water. Remove all contaminated clothing as soon as possible. Any assistance that is given to the injured should be done to minimize splashing, spattering or spraying.

a. **What you can do in your community** Protecting yourself from MRSA in your community — which might be just about anywhere — may seem daunting, but these common-sense precautions can help reduce your risk:

b. **Wash your hands.** Careful hand washing remains your best defense against germs. Scrub hands briskly for at least 15 seconds, then dry them with a disposable towel and use another towel to turn off the faucet. Carry a small bottle of hand sanitizer containing at least 60 percent alcohol for times when you do not have access to soap and water.

c. **Keep personal items personal.** Avoid sharing personal items such as towels, sheets, razors, clothing and athletic equipment. MRSA spreads on contaminated objects as well as through direct contact.

d. **Keep wounds covered.** Keep cuts and abrasions clean and covered with sterile, dry bandages until they heal. The pus from infected sores may contain MRSA, and keeping wounds covered will help keep the bacteria from spreading.

e. **Shower after athletic games or practices.** Shower immediately after each game or practice. Use soap and water. Do not share towels.

f. **Sit out athletic games or practices if you have a concerning infection.** If you have a wound that's draining or appears infected — for example, is red, swollen, warm to the touch or tender — consider sitting out athletic games or practices until the wound has healed.

g. **Sanitize linens.** If you have a cut or sore, wash towels and bed linens in a washing machine set to the "hot" water setting (with added bleach, if possible) and dry them in a hot dryer. Wash gym and athletic clothes after each wearing.

h. **Get tested.** If you have a skin infection that requires treatment, ask your doctor if you should be tested for MRSA. Doctors may prescribe drugs that are not effective against antibiotic-resistant staph, which delays treatment and creates more resistant germs. Testing specifically for MRSA may get you the specific antibiotic you need to effectively treat your infection.

i. **Use antibiotics appropriately.** When you are prescribed an antibiotic, take all of the doses, even if the infection is getting better. Do not stop until your doctor tells you to stop. Do not share antibiotics with others or save unfinished antibiotics for another time. Inappropriate use of antibiotics, including not taking all of your prescription and overuse, contributes to resistance. If your infection is not improving after a few days of taking an antibiotic, contact your doctor.

H. Personal Protective Equipment (PPE) General - First aid/CPR equipment shall include the following items of protective equipment that is provided for ALL employees use:

1. Gloves that will protect the skin from blood or other potentially infectious materials; Gloves shall be worn when the responder has the potential to have direct skin contact with blood or other potentially infectious body fluids or materials, or when handling items or surfaces soiled with blood or other potentially infectious body fluids or materials Gloves shall be changed when visibly soiled, torn, punctured or when their ability to function as a barrier is compromised. Gloves shall not be re-used.

2. Safety glasses equipped with side shields shall be worn if there is potential for splashing, spraying blood or other potentially infectious material

3. A face shield shall also be worn if there is a potential for splashing, spraying of blood or other potentially infectious material.

4. Mouthpieces or resuscitation bags shall be used to avoid "mouth-to-mouth" contact.

5. A disposable gown, apron or coverall will be utilized when there is the potential for splashing or spraying of blood or other potentially infectious materials on the work clothing.

6. Antiseptic hand cleanser and clean paper towel or cloth. Hands and other skin surfaces shall be washed immediately and thoroughly if contaminated with blood, potentially infectious body fluids or materials, or after handling soiled or contaminated equipment. Hands shall be washed immediately after gloves are removed.

7. Red biohazard bags shall be used for all blood soaked clothing, bandages or other infected items.

8. It is preferable for the facility at which MSB is working have an hand washing facility. However, If one is not present, employees will have sanitary wipes and cleansers provided by MSB.

#### I. Hepatitis B Vaccination

Each employee shall be offered the opportunity to receive the Hepatitis B immunization vaccination free of charge. Information concerning the vaccination shall be covered in the training program. Responders shall be offered the vaccine within ten (10) days of the conclusion of their initial training. Those refusing the vaccine must sign a declination form.

2. HBV vaccine now being used in the USA is made from yeast and cannot be infected with HIV or other blood borne pathogen. The vaccine is perfectly safe and is administered in a series of 3 injections. The vaccine is 85 to 97 percent effective at protecting you from getting HBV or becoming a carrier for nine years or longer.

#### J. Procedures after Possible Exposure

1. If a worker suffers a needle stick, cut; mucous membrane (splash to eye, nasal

mucous, or mouth); exposure; or has a skin exposure to blood when the workers skin is chapped, abraded, or otherwise non-intact, the employer shall be informed of the incident. The worker shall be tested for HIV and HBV infections, after consent is obtained.

2. If consent is refused or if the employee tests positive, the individual shall be evaluated clinically and by HIV antibody testing as soon as possible and advised to report and seek medical evaluation of any acute febrile illness that occurs within 12 weeks after exposure. HIV zero negative workers shall be retested 6 weeks post-exposure and on a periodic basis thereafter (12) weeks and 6 months after exposure.

3. Follow-up procedures shall be taken for employees exposed or potentially exposed to HBV. The types of procedures depend on the immunization status of the individual (i.e. Whether HBV vaccination has been received and antibody response is adequate) and the HBV serologic status of the worker.

4. If an employee refuses to submit to the procedures in (2) or (3) above when such procedures are medically indicated, no adverse action can be taken on that ground alone since the procedures are designed for the benefit of the exposed employee.

#### K. Disposal of Wastes

1. All blood soaked clothing, bandages or other materials shall be placed in red bags marked BIOHAZARD.

2. If such bags are not available, tags shall be used as a means to identify potentially hazardous material. Tags shall be used until such time as the identified hazard is eliminated or the hazardous operation is completed. Tags shall contain a signal word and a major message. The signal word shall be BIOHAZARD or the biological hazard symbol. The major message shall indicate the specific hazardous condition to be communicated to the employee. The signal word shall be readable at a minimum of 5 feet or such greater distance as warranted by the hazard. They shall be attached by a positive means such as wire, string, or adhesive that prevents their loss.

3. All materials shall be properly disposed of. All surfaces that are in contact with blood MUST be cleaned.

L. Recordkeeping basic requirement. You must record all work-related needle stick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material (as defined by chapter 296-823 WAC, Occupational exposure to bloodborne pathogens). You must enter the case on the OSHA 300 Log as an injury. To protect the employee's privacy, you may not enter the employee's name on the OSHA 300 Log (see the requirements for privacy cases in WAC 296-27-01119). All records will be kept for a minimum of 30 years and training records will be kept for 3 years.

1. What does "other potentially infectious materials" mean? The term "other potentially infectious materials" is in chapter 296-823 WAC, Occupational Exposure to BBP. These materials include:

a. The following human body fluids: Semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;

b. Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and

c. HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.



2. Does this mean that I must record all cuts, lacerations, punctures, and scratches? No, you need to record cuts, lacerations, punctures, and scratches only if they are work-related and involve contamination with another person's blood or other potentially infectious material. If the cut, laceration, or scratch involves a clean object, or a contaminant other than blood or other potentially infectious material, you need to record the case only if it meets one or more of the recording criteria in WAC 296-27-01107.

3. If I record an injury and the employee is later diagnosed with an infectious bloodborne disease, do I need to update the OSHA 300 Log? Yes, you must update the classification of the case on the OSHA 300 Log if the case results in death, days away from work, restricted work, or job transfer. You must also update the description to identify the infectious disease and change the classification of the case from an injury to an illness.

4. What if one of my employees is splashed or exposed to blood or other potentially infectious material without being cut or scratched? Do I need to record this incident? You need to record such an incident on the OSHA 300 Log as an illness if:

- a. It results in the diagnosis of a bloodborne illness, such as HIV, hepatitis B, or hepatitis C; or
- b. It meets one or more of the recording criteria in WAC 296-27-01107.

## **HAZARD IDENTIFICATION AND ASSESSMENT**

To assist in the identification and correction of hazards, the company has developed the following procedures. These procedures are representative only and are not exhaustive of all the measures and methods that will be implemented to guard against injury from recognized and potential hazards in the workplace. As new hazards are identified or improved work procedures developed, they will be promptly incorporated into our Safety Manual. The following methods will be utilized to identify hazards in the workplace:

- Loss analysis of accident trends
- Accident investigation
- Employee observation
- Employee suggestions
- Regulatory requirements for our industry
- Outside agencies such as the fire department and insurance carriers
- Periodic safety inspections

### Loss Analysis

Periodic loss analyses will be conducted by the safety program administrator. These will help identify areas of concern and potential job hazards. The results of these analyses will be communicated to management, supervision, and employees through safety meetings and other appropriate means.

### Accident Investigations

All accidents and injuries will be investigated in accordance with the guidelines contained in this program. Accident investigations will focus on all causal factors and corrective action including the identification and correction of hazards that may have contributed to the accident.

### Employee Observation

Superintendents and foremen shall be continually observing employees for unsafe actions and taking corrective action as necessary.

### Employee Suggestions

Employees are encouraged to report any hazard they observe to their supervisor. No employee is to ever be disciplined or discharged for reporting any workplace hazard or unsafe condition. However, employees who do NOT report potential hazards or unsafe conditions that they are aware of will be subject to disciplinary action.

### Regulatory Requirements

All industries are subject to government regulations relating to safety. Many of these regulations are specific to our type of business. Copies of pertinent regulations can be obtained from the Safety Program Administrator.

### Outside Agencies

Several organizations may assist us in identifying hazards in our workplace. These include safety officers from other contractors, insurance carrier safety and health consultants, private industry consultants, the fire department, and State OSH Consultants.

### Periodic Safety Inspections

Periodic safety inspections ensure that physical and mechanical hazards are under control and identify situations that may become potentially hazardous. Inspections shall include a review of the work habits of employees in all work areas. These inspections will be conducted by the Supervisor, Manager, Program Administrator or other designated individual.

Periodic safety inspections will be conducted:

- When new substances, process, procedures or equipment are used.
- When new or previously unrecognized hazards are identified.
- Periodically by the Supervisor.
- Periodically by the Safety Program Administrator.

These inspections will focus on both unsafe employee actions as well as unsafe conditions. The following is a partial list of items to be checked.

- The proper use, condition, maintenance and grounding of all electrically operated equipment.
- The proper use, condition, and maintenance of safeguards for all power-driven equipment.
- Compliance with the Code of Safe Practices.
- Housekeeping and personal protective equipment.
- Hazardous materials.
- Proper material storage.
- Provision of first aid equipment and emergency medical services.

Any and all hazards identified will be corrected as soon as practical in accordance with the company hazard correction policy.

If imminent or life threatening hazards are identified, which cannot be immediately corrected, all employees must be removed from the area, except those with special training required to correct the hazard, who will be provided necessary safeguards.

#### Documentation of Inspections

Safety inspections will be documented to include the following:

- Date on which the inspection was performed.
- The name and title of person who performed the inspection.
- Any hazardous conditions noted or discovered and the steps or procedures taken to correct them.
- Signature of the person who performed the inspection.

One copy of the completed form should be sent to the office. All reports shall be kept on file for a minimum of two (2) years.

## **HAZARD PREVENTION, CORRECTION, AND CONTROL**

The following procedures will be used to evaluate, prioritize and correct identified safety hazards. Hazards will be corrected in order of priority: the most serious hazards will be corrected first.

#### Hazard Evaluation

Factors that will be considered when evaluating hazards include:

- Potential severity - The potential for serious injury, illness or fatality
- Likelihood of exposure - The probability of the employee coming into contact with the hazard
- Frequency of exposure - How often employees come into contact with the hazard
- Number of employees exposed
- Possible corrective actions - What can be done to minimize or eliminate the hazard
- Time necessary to correct - The time necessary to minimize or eliminate the hazard

#### Techniques for Correcting Hazards

1. Engineering Controls: Could include machine guarding, ventilation, noise reduction at the source, and provision of material handling equipment. These are the first and preferred methods of control.
2. Administrative Controls: The next most desirable method would include rotation of employees or limiting exposure time.
3. Personal Protective Equipment: Includes back support belts, hearing protection, respirators and safety glasses. These are often the least effective controls for hazards and should be relied upon only when other controls are impractical.

#### Documentation of Corrective Action

All corrective action taken to mitigate hazards should be documented. Depending on the

circumstances, one of the following forms should be used:

- Safety Contact Report
- Safety Meeting Report
- Memo or letter
- Safety inspection form

All hazards noted on safety inspections will be rechecked on each subsequent inspection and notations made as to their status.

## Hazardous Materials and Chemicals **HAZARD COMMUNICATION PROGRAM**

### Introduction

It is company policy that the first consideration of work shall be the protection of the safety and health of all employees. We have developed this Hazard Communication Program to ensure that all employees receive adequate information about the possible hazards that may result from the various materials used in our operations. This Hazard Communication Program will be monitored by the Safety Program Administrator who will be responsible for ensuring that all facets of the program are carried out, and that the program is effective.

Our program consists of the following elements:

1. Hazardous material inventory.
2. Collection and maintenance of Material Safety Data Sheets.
3. Container labeling.
4. Employee training.

The following items are not required to be included in the program and are therefore omitted:

- Foods, drugs, cosmetics or tobacco.
- Untreated wood products.
- Hazardous waste.
- Consumer products packaged for sale to and use by the general public, provided that our exposure is not significantly greater than typical consumer exposure.

### Hazardous Material Inventory

The Safety Program Administrator maintains a list of all hazardous materials used in our operations. This list contains the name of the product, the type of product (solvent, adhesive etc.) and the name and address of the manufacturer.

### Safety Data Sheets (SDS)

Copies of SDS for all hazardous substances to which our employees may be exposed will be kept in a binder at the main office. These SDS are available to all employees, at all times, upon request.

Copies of the most commonly used products will also be kept by the Supervisor at the work site.

The Safety Program Administrator will be responsible for reviewing incoming SDS for new and significant health/safety information. They will ensure that any new information is passed on to the affected employees.

The Safety Program Administrator will also review all incoming SDS for completeness. If an SDS is missing or obviously incomplete, a new SDS will be requested from the manufacturer. Federal or State (if applicable) OSHA will be notified if a complete MSDS is not received and the manufacturer will not supply one.

New materials will not be introduced into the shop or field until a SDS has been received. The purchasing department will make it an ongoing part of their function to obtain SDS for all new materials when they are first ordered. ALL hazardous chemicals must have a SDS sheets presented and kept. Employees are welcome to request and inspect SDS sheets at any time.

#### Container Labeling

No container of hazardous substances will be used unless the container is correctly labeled and the label is legible.

All chemicals in cans, bags, drums, pails, etc., will be checked by the receiving department to ensure the manufacturer's label is intact, is legible, and has not been damaged in any manner during shipment. Any containers found to have damaged labels will be held until a new label has been installed. New labels will be obtained from the manufacturer.

The label must contain:

- The chemical name of the contents.
- The appropriate hazard warnings.
- The name and address of the manufacturer.

All secondary containers will be labeled as to their contents with a reference to the original label.

#### Employee Information and Training

All employees will be provided information and training on the following items through the company safety training program and prior to starting work with hazardous substances:

1. An overview of the requirements of the Hazard Communication Standard, including their rights under this regulation.
2. Information regarding the use of hazardous substances in their specific work areas.
3. The location and availability of the written hazard communication program. The program will be available from the Supervisor and Safety Program Administrator.
4. The physical and health hazards of the hazardous substances in use.
5. Methods and observation techniques used to determine the presence or release of hazardous substances in the work area.
6. The controls, work practices and personal protective equipment available for protection against possible exposure.
7. Emergency and first aid procedures to follow if employees are exposed to hazardous substances.
8. How to read labels and material safety data sheets to obtain the appropriate hazard

information.

#### Hazardous Non-Routine Tasks

Infrequently, employees may be required to perform hazardous non-routine tasks. Prior to starting this work, each involved employee will be given information by his/her supervisor about hazards to which they may be exposed during such activity.

This information will include:

- The specific hazards.
- Protective/safety measures which must be utilized.
- The measures the company has taken to lessen the hazards, including special ventilation, respirators, the presence of another employee, emergency procedures, etc.

#### Informing Outside Contractors and Vendors

To ensure that outside contractors are not exposed to our hazardous materials, and to ensure the safety of the contractor's employees, it will be the responsibility of the Supervisor to provide outside contractors the following information:

- The hazardous substances under our control that they may be exposed to while at the work site.
- The precautions the contractor's employees must take to lessen the possibility of exposure.

We will obtain from outside contractors and vendors the name of any hazardous substances the contractor's employees may be using at a work site or bringing into our facility. The contractor must also supply a copy of the material safety data sheet relevant to these materials.

#### Employee Rights Under The Hazard Communication Standard

At any time, an employee has the right to:

- Access the MSDS folder, and the Hazard Communication Program.
- Receive a copy of any environmental sampling data collected in the workplace.
- See their employment medical records upon request.

## **FIRST AID AND MEDICAL EMERGENCY PROCEDURES**

The company will ensure the availability of emergency medical services for its employees at all times. We will also ensure the availability of a suitable number of appropriately trained persons to render first aid. The Safety Program Administrator will maintain a list of trained individuals and take steps to provide training for those that desire it. All first aid certifications and trainings will be certified by the American Red Cross or equivalent. All certifications under ARC or equivalent must be present on

certification cards or certificates.

#### First-Aid Kits

Every work site shall have access to at least one first-aid kit in a weatherproof container. The first-aid kit will be inspected regularly to ensure that it is well stocked, in sanitary condition, and any used items are promptly replaced. The contents of the first-aid kit shall be arranged to be quickly found and remain sanitary. First-aid dressings shall be sterile and in individually sealed packages.

Drugs, antiseptics, eye irrigation solutions, inhalants, medicines, or proprietary preparations shall not be included in first-aid kits unless specifically approved, in writing, by an employer-authorized, licensed physician. Other supplies and equipment, if provided, shall be in accordance with the documented recommendations of an employer-authorized licensed physician upon consideration of the extent and type of emergency care to be given based upon the anticipated incidence and nature of injuries and illnesses and availability of transportation to medical care.

#### First Aid

The designated first aid person on each site will be available at all times to render appropriate first aid for injuries and illnesses. Proper equipment for the prompt transportation of the injured or ill person to a physician or hospital where emergency care is provided, or an effective communication system for contacting hospitals or other emergency medical facilities, physicians, ambulance and fire services, shall also be provided. The telephone numbers of the following emergency services in the area shall be posted near the job telephone, or otherwise made available to the employees where no job site telephone exists:

1. A company authorized physician or medical clinic, and at least one alternate if available.
2. Hospitals.
3. Ambulance services.
4. Fire-protection services.

Prior to the commencement of work at any site, the Supervisor or Manager shall locate the nearest preferred medical facility and establish that transportation or communication methods are available in the event of an employee injury.

Each employee shall be informed of the procedures to follow in case of injury or illness through our new employee orientation program, Code of Safe Practices, and safety meetings.

Where the eyes or body of any person may be exposed to injurious or corrosive materials, suitable facilities for drenching the body or flushing the eyes with clean water shall be conspicuously and readily accessible.

#### Accident Procedures

These procedures are to be followed in the event of an employee injury in the course of employment.

1. For severe accidents call 911 and request the Paramedics.

2. Employees must report all work related injuries to their Supervisor immediately. Even if they do not feel that it requires medical attention. Failure to do so may result in a delay of Workers' Compensation benefits and disciplinary action.
3. The Supervisor, employee, and first aid person, should determine whether or not outside medical attention is needed. When uncertainty exists on the part of any individual, the employee should be sent for professional medical care.
4. If medical attention is not desired or the employee refuses treatment, you must still fill out a company "Accident Report" in case complications arise later.
5. In all cases, if the employee cannot transport himself or herself for any reason, transportation should be provided.
6. In the event of a serious accident involving hospitalization for more than 24 hours, amputation, permanent disfigurement, loss of consciousness or death, phone contact should be made with the main office. Contact must also be made with the nearest Federal or State (if applicable) OSHA office.

## **ACCIDENT / EXPOSURE INVESTIGATION**

The Supervisor, Manager, or other designated individual will investigate all work-related accidents in a timely manner. This includes minor incidents and "near accidents", as well as serious injuries. An accident is defined as any unexpected occurrence that results in injury to personnel, damage to equipment, facilities, or material, or interruption of normal operations.

### **Responsibility for Accident Investigation**

Immediately upon being notified of an accident, the Supervisor, Manager, or other designated individual shall conduct an investigation. The purpose of the investigation is to determine the cause of the accident and corrective action to prevent future reoccurrence; not to fix blame or find fault. An unbiased approach is necessary in order to obtain objective findings.

### **The Purpose of Accident Investigations:**

- To prevent or decrease the likelihood of similar accidents.
- To identify and correct unsafe work practices and physical hazards. Accidents are often caused by a combination of these two factors.
- To identify training needs. This makes training more effective by focusing on factors that are most likely to cause accidents.

### **What Types of Incidents Do We Investigate?**

- Fatalities
- Serious injuries
- Minor injuries
- Property damage
- Near misses



## Procedures for Investigation of Accidents

Immediately upon being notified of an accident the Supervisor, Manager, or other designated individual will:

1. Visit the accident scene, as soon as possible, while facts and evidence are still fresh and before witnesses forget important details and to make sure hazardous conditions to which other employees or customers could be exposed are corrected or have been removed;
2. Provide for needed first aid or call 911 emergency for the injured employee(s).
3. If possible, interview the injured worker at the scene of the accident and verbally "walk" him or her through a re-enactment. All interviews should be conducted as privately as possible. Interview all witnesses individually and talk with anyone who has knowledge of the accident, even if they did not actually witness it.
4. Report the accident to the main office. Accidents will be reported by the office to the insurance carrier within 24 hours. All serious accidents will be reported to the carrier as soon as possible.
5. Consider taking signed statements in cases where facts are unclear or there is an element of controversy.
6. Thoroughly investigate the accident to identify all accident causes and contributing factors. Document details graphically. Use sketches, diagrams and photos as needed. Take measurements when appropriate.
7. All accidents involving death, disfigurement, amputation, loss of consciousness or hospitalization for more than 24 hours must be reported to Federal or State (if applicable) OSHA immediately.
8. Focus on causes and hazards. Develop an analysis of what happened, how it happened, and how it could have been prevented. Determine what caused the accident itself, not just the injury.
9. Every investigation must also include an action plan. How can such accidents be prevented in the future?
10. In the event a third party or defective product contributed to the accident, save any evidence as it could be critical to the recovery of claim costs.

## Accurate & Prompt Investigations

- Ensures information is available
- Causes can be quickly corrected
- Helps identify all contributing factors
- Reflects management concern
- Reduces chance of recurrence

## Investigation Tips

- Avoid placing blame
- Document with photos and diagrams, if needed

- Be objective, get the facts
- Reconstruct the event
- Use open-ended questions

#### Questions to Ask

When investigating accidents, open-ended questions such as who?, what?, when?, where?, why?, and how? will provide more information than closed-ended questions such as "Were you wearing gloves?"

Examples include:

- How did it happen?
- Why did it happen?
- How could it have been prevented?
- Who was involved?
- Who witnessed the incident?
- Where were the witnesses at the time of the incident?
- What was the injured worker doing?
- What was the employee working on?
- When did it happen?
- When was the accident reported?
- Where did it happen?
- Why was the employee assigned to do the job?

The single, most important question that must be answered as the result of any investigation is:

"What do you recommend be done (or have you done) to prevent this type of incident from recurring?"

#### Once the Accident Investigation is Completed

- Take or recommend corrective action
- Document corrective action
- Management and the Safety Program Administrator will review the results of all investigations
- Consider safety program modifications

Information obtained through accident investigations can be used to update and improve our current program.

## **TRAINING AND INSTRUCTION**

Every new employee will be given instruction by their Supervisor in the general safety requirements of their job. A copy of our Code of Safe Practices shall also be provided to each employee.

Managers, Supervisors, and employees will be trained at least twice per year on various accident prevention topics.

Training provides the following benefits:

- Makes employees aware of job hazards
- Teaches employees to perform jobs safely
- Promotes two way communication
- Encourages safety suggestions
- Creates interest in the safety program
- Fulfills Federal or State (if applicable) OSHA requirements

Employee training will be provided at the following times:

1. All new employees will receive a safety orientation their first day on the job.
2. All new employees will be given a copy of the Code of Safe Practices and required to read and sign for it.
3. All employees given a new job assignment for which training has not been previously provided will be trained before beginning the new assignment.
4. Whenever new substances, processes, procedures or equipment that represent a new hazard are introduced into the workplace.
5. Whenever the company is made aware of a new or previously unrecognized hazard.
6. Whenever management believes that additional training is necessary.
7. After all serious accidents.
8. When employees are not following safe work rules or procedures.

Training topics will include, but not be limited to:

- Employee's safety responsibility
- General safety rules
- Code of Safe Practices
- Safe job procedures
- Ergonomics
- Use of hazardous materials
- Use of equipment
- Emergency procedures
- Safe lifting and material handling practices
- Contents of safety program

#### Documentation of Training

All training will be documented on one of the following three forms.

New Employee Safety Orientation  
Employee Safety Contact Form  
Safety Meeting Report

The following training method should be used. Actual demonstrations of the proper way to perform a task are very helpful in most cases.

- Tell them how to do the job safely
- Show them how to do the job safely
- Have them tell you how to do the job safely
- Have them show you how to do the job safely

Follow up to ensure they are still performing the job safely

## **FIRE PREVENTION AND EMERGENCY ACTION PLAN**

The company has developed the following emergency plan to cover those designated actions that must be taken to ensure employee safety from fire and during other emergencies. Any questions about this plan should be directed to The Safety Program Administrator.

Facility Emergency Evacuation and Fire Prevention

The Safety Program Administrator is responsible for ensuring the following:

1. That all required emergency exits are clearly identified in the office, shop, and warehouse and that all required fire fighting and emergency equipment is available and in good condition.

The following items will be maintained:

- First aid kit
  - Drinking water
  - Flashlight
  - Portable battery powered radio and batteries
  - Fire extinguishers
  - Wrench to shut off the main gas valve
  - Pry bars, axes, saws, tools or similar devices for employee rescue
2. Creating a facility map designating all emergency evacuation routes and the locations of all fire fighting equipment and emergency supplies and equipment. These maps will be posted in at least two locations in the facility.
  3. Training all exposed employees on the procedures to be followed in the event of fire, earthquake or other emergency including how to properly notify other affected employees.
  4. Identifying potential fire hazards in the office, shop and warehouse and ensuring that adequate steps are taken to prevent fires.
  5. Ensuring that combustible trash and materials are removed promptly from the facility, and that all flammable and combustible liquids are properly stored and handled.

#### During an Emergency

In the event of an emergency such as earthquake or fire, all employees are expected to evacuate the premises immediately. The Safety Program Manager or Safety Committee members may assign some employees the task of shutting off the gas or electricity, if needed. At no time will any employee be expected to jeopardize their own safety to do this.

Employees will be notified of emergencies through one of the following:

- Fire alarm
- Intercom
- Emergency horn
- Direct voice communication

After the emergency evacuation has been completed, a head count will be taken to ensure everyone is out of the building.

If necessary, the Safety Program Administrator or Safety Committee members may assign some employees to rescue trapped employees.

#### Fire Prevention in Shops and Warehouses

The following procedures will be used to prevent fires in shops and warehouses.

1. All accumulated combustible trash and debris will be removed as soon as practical.
2. Flammable liquids will only be stored and dispensed from UL approved safety containers designed for that purpose.
3. All rags soaked with flammable or combustible liquids will be properly stored in closed metal containers.
4. Appropriate precautions will be taken to prevent fires when torch cutting, welding or soldering.
5. Compressed gas cylinders containing flammable or explosive gasses will be properly stored in the upright position with their caps on and protected from heat or puncture. Fuel gas and oxygen shall be separated at least 20 feet when stored.
6. Smoking or open lights are prohibited within 50 feet of flammable liquid or gas storage and dispensing areas.
7. Flammable solvents will not be used for cleaning purposes.
8. A fire extinguisher, rated not less than 2A, shall be provided for each 3,000 square feet of the floor area, or fraction thereof. Where the floor area is less than 3,000 square feet, at least one extinguisher shall be provided.
9. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 75 feet.
10. At least one fire extinguisher, rated not less than 2A, shall be provided on each floor. In multi-story buildings, at least one fire extinguisher shall be located adjacent to the stairway at each floor level.
11. A fire extinguisher, rated not less than 10B, shall be provided within 50 feet of wherever more than 5 gallons of flammable or combustible liquids or 5 pounds of flammable gas are being used on the job site. This requirement does not apply to the integral fuel tanks of motor vehicles. All employees will be trained on the use of Fire Extinguishers. Retraining will be provided annually.
12. Portable fire extinguishers shall be inspected monthly, or at more frequent intervals by the employer, and serviced at least annually by a person licensed or registered by the State Fire Marshal. NOTE: Inspection is a "quick check" that an extinguisher is available and will operate. It is intended to give reasonable assurance that the extinguisher is fully charged and operable. This is done by seeing that it is in its designated place, that it has not been actuated or tampered with, and that there is no obvious or physical damage or condition to prevent operation.
13. Suitable fire control devices, such as portable fire extinguishers, shall be available at locations where flammable or combustible liquids are stored.
14. At least one portable fire extinguisher, having a rating of not less than 20-B units, shall be located outside of, but not more than 10 feet from, the door opening into any room used for flammable liquid storage.

15. At least one portable fire extinguisher, having a rating of not less than 20-B units, shall be located not less than 25 feet, nor more than 75 feet, from any flammable liquid storage area located outside.

## **FLEET AND DRIVER SAFETY**

The company has established the following guidelines and procedures for our drivers and vehicles to protect the safety of individuals operating any motor vehicle on company business. Protecting our employee drivers, their passengers, and the public is of the highest priority. The commitment of management and employees is critical to the success of this program. Clear communication of, and strict adherence to, the program's guidelines and procedures are essential.

Our primary goal is to maintain a high level of safety awareness and foster responsible driving behavior. Driver safety awareness and responsible driving behavior will significantly decrease the frequency of motor vehicle accidents and reduce the severity of personal injuries and property damage.

Drivers must follow the requirements outlined in this program. Violations of this program may result in disciplinary action up to, and including, suspension of driving privileges or dismissal.

Our program consists of the following elements:

- Driver selection
- Driver training
- Vehicle use policy
- Vehicle inspection & preventive maintenance
- Accident investigation

### **Driver Selection**

Only company authorized and assigned employees are allowed to drive company vehicles at any time. Prior to being authorized and assigned, the company will check the following items. Drivers must have:

- A valid un-restricted drivers license.
- A current MVR driving record with no more than 2 points and no serious or major violations.

The company will also check driving records of all employees authorized to drive on company business on an annual basis.

Employees that do not meet these requirements are not authorized or allowed to drive company vehicles or drive their own vehicle on company business.

### **Driver Training**

All employees driving company vehicles, and personal vehicles on company business, will be given a

copy of the Driving Safety Rules and Company Vehicle Use Policy and required to read and sign for them. Safe driving will also be periodically covered at company safety meetings.

#### Company Vehicle Use Policy

The company has established the following policies pertaining to company vehicles:

1. Personal and off duty use of company vehicles is prohibited.
2. Only authorized employees may drive company vehicles. No other family members may drive company vehicles.
3. Non-employee passengers are not permitted in company vehicles at any time, unless they are business related.
4. Seat belts must be worn in company vehicles at all times.
5. No employee is permitted to drive company vehicles while impaired by alcohol, illegal or prescription drugs, or over the counter medications.
6. All accidents involving company vehicles must be reported to the office immediately.
7. Employees with two or more preventable accidents in a three year period, or that obtain three points on their driving record, will be subject to a loss of their driving privileges or have their driving privileges restricted.
8. Distracted Driving – We prohibit the use of cell phones and/or handheld devices while operating a company vehicle while moving or stopped at a light or traffic area. This includes making or receiving phone calls, using apps or other features, email programs, instant messaging or any other type of actions. If phone calls need to be made or received, please use handsfree options. If hands free is not available, pull over to make phone calls.

#### Vehicle Inspection & Preventive Maintenance

All company vehicles must be inspected by the driver prior to each use. Mechanical defects will be repaired immediately. The Safety Program Administrator will periodically spot check company vehicles to determine their condition.

Vehicle inspections will include:

- Lights
- Turn signals
- Emergency flashers
- Tires
- Horn
- Brakes
- Fluids
- Windshield condition and wiper condition
- Mirrors

All vehicles will also be maintained in accordance with the manufacturers' recommendations. It is



the responsibility of the individual assigned the vehicle to ensure proper maintenance and repairs are performed. If your vehicle is not safe, do not drive.

## Accident Investigation

All accidents in company vehicles will be investigated by the Supervisor, Manager and / or the Safety Program Administrator. Where possible, witness's statements will be obtained and photos used to document the scene of the accident and the damage. Police reports will also be obtained whenever possible. The following guidelines will be used to help determine preventability.

## Auto Accident Preventability Guide

This guide will assist in determining whether our driver could have prevented the accident. An accident is preventable if the driver could have done something to avoid it. Drivers are expected to drive defensively. Which driver was primarily at fault, which received a traffic citation, or whether a claim was paid has no bearing on preventability. If there was anything our driver could have done to avoid the collision, then the accident was preventable.

An accident was non preventable when the vehicle was legally and properly parked, or when properly stopped because of a highway patrol officer, a signal, stop sign, or traffic condition. When judging accident preventability, here are some general questions to consider:

1. Does the investigation indicate that the driver considers the rights of others, or is there evidence of poor driving habits that need to be changed?
2. Does the investigation indicate driver awareness? Such phrases as "I did not see," "I didn't think," "I didn't expect," or "I thought" are signals indicating there probably was a lack of awareness, and the accident was preventable. An aware driver should think, expect, and see hazardous situations in time to avoid collisions.
3. Was the driver under any physical stresses that could have been contributory? Did the accident happen near the end of a long day or long drive? Did overeating contribute to fatigue? Did the driver get prior sufficient sleep? Is the driver's vision faulty? Was the driver feeling ill?
4. Was the vehicle defective without the driver's knowledge? Was a pre-trip inspection done, and would it have discovered the defect? A car that pulls to the left or right when the driver applies the brakes, faulty windshield wipers, and similar items are excuses, and a driver using them is trying to evade responsibility. Sudden brake failure, loss of steering, or a blowout might be defects beyond the driver's ability to predict. However, pre-trip inspections and regularly scheduled maintenance should prevent most of these problems. If either of these are the cause of the accident, then the accident was probably preventable by the driver.
5. Could the driver have exercised better judgment by taking an alternate route through less congested areas to reduce the hazardous situations encountered?
6. Could the driver have done anything to avoid the accident?
7. Was the driver's speed safe for conditions?
8. Did the driver obey all traffic signals?

## 9. Was the driver's vehicle under control?

### Intersection Collisions

Failure of our driver to yield the right-of-way, regardless of who has the right of way, as indicated by stop signs or lights, is preventable. The only exception to this is when the driver is properly proceeding through an intersection protected by lights or stop signs and the driver's vehicle is struck in the extreme rear side of the vehicle. Regardless of stop signs, stoplights, or right-of-way, a defensive driver recognizes that the right-of-way belongs to anyone who assumes it and should yield accordingly.

Questions to consider:

1. Did the driver approach the intersection at a speed safe for conditions?
2. Was the driver prepared to stop before entering the intersection?
3. At a blind corner, did the driver pull out slowly, ready to apply the brakes?
4. Did the driver look both ways before proceeding through the intersection?

### Sideswipes

Sideswipes are often preventable. Defensive drivers do not get into a position where they can be forced into another vehicle or another vehicle can be forced into them. Defensive drivers continuously check for escape routes to avoid sideswipes. For two lane roads, this means a driver should pass another vehicle only when absolutely certain that he or she can safely complete the pass. A driver should also be ready to slow down and let a passing vehicle that has failed to judge safe passing distance back into the lane. A driver should make no sudden moves that may force another vehicle to swerve. If a driver sideswipes a stationary object while taking evasive action to avoid striking another car or a pedestrian, such an accident may not be preventable. However, you should consider what the driver could have done or failed to do immediately preceding the evasive action to be in the position of no other options.

A driver is also expected to anticipate the actions of an oncoming vehicle. Sideswiping an oncoming vehicle is often preventable. Again, evasive action, including leaving the roadway, may be necessary if an oncoming vehicle crosses into the driver's lane. Drivers are expected to allow merging vehicles to merge smoothly with them, and to merge smoothly on controlled access highways. Drivers are expected to be able to gauge distances properly when leaving a parking place and enter traffic smoothly.

Questions to consider:

1. Did the driver look to front and rear for approaching and overtaking traffic immediately before starting to pull away from the curb?
2. Did the driver signal before pulling away from the curb?
3. Did the driver look back rather than depend only upon rear-view mirrors?
4. Did the driver start into traffic only when this action would not require traffic to change its speed or direction in order to avoid his or her vehicle?

### Head-on Collisions

A head-on collision with a vehicle traveling in the wrong lane may be preventable if the driver could have pulled off the road or taken other evasive action to prevent a collision. However, the driver

should never drive into the other lane to avoid the oncoming vehicle. If the driver swerved off the road to avoid a head-on collision, the accident is non-preventable. The driver in this case made a good defensive driving decision, taking the lesser of two evils.

Many skidding conditions are caused by rain, freezing rain, fog, and snow, which all increase the hazard of travel. Oily road film, which builds up during a period of good weather, causes an especially treacherous condition during the first minutes of a rainfall. Loss of traction can be anticipated, and these accidents usually are preventable. Driving too fast for conditions is the most common reason why these types of accidents are preventable.

Questions to consider:

1. Was the driver operating at a safe speed considering weather and road conditions?
2. During inclement weather, was the driver keeping at least twice the safe following distance used for dry pavement?
3. Were all actions gradual?
4. Was the driver anticipating ice on bridges, in gutter, ruts, and near the curb?
5. Was the driver alert for water, ice or snow in shaded areas, loose gravel, sand, ruts, etc?

If a driver goes off the road or strikes another vehicle because of skidding, the accident is preventable.

#### Pedestrian Accidents

All types of pedestrian accidents, including collisions with pedestrians coming from between parked cars, are usually considered preventable. There are few instances where the action of pedestrians is so unreasonable that the operator could not be expected to anticipate such an occurrence.

Questions to consider:

1. Did the driver go through congested areas expecting that pedestrians would step in front of the vehicle?
2. Was the driver prepared to stop?
3. Did the driver keep as much clearance between his or her vehicle and parked vehicles, as safety permitted?
4. Did the driver stop when other vehicles had stopped to allow pedestrians to cross?
5. Did the driver wait for the green light or stop for the caution light?
6. Was the driver aware of children and prepared to stop if one ran into the street?
7. Did the driver give all pedestrians the right-of-way?
8. Did the driver stop for a school bus that was stopped and properly signaling that passengers were loading or unloading?

#### Backing Accidents

Backing a vehicle into another vehicle, an overhead obstruction, or a stationary object is normally preventable. The fact that someone was directing the driver in backing does not relieve the driver of the responsibility to back safely.

Questions to consider:

1. Was it necessary to back?

2. Did the driver plan ahead so that he or she could have pulled forward out of the parking space instead of backing?
3. Was it necessary to drive into the narrow street, dead-end alley, or driveway from which he or she backed?
4. If the driver could not see where he or she was backing: Did the driver try to get someone to guide him or her?
5. Did the driver look all around the vehicle before backing? Did the driver back immediately after looking?
6. Did the driver use the horn while backing? Were the back-up lights working?
7. Did the driver look to the rear without relying totally on the rear-view mirror?
8. If the distance was long, did the driver stop, get out, and look around occasionally?
9. Did the driver back slowly?
10. Did the driver judge clearances accurately?

### Parking Accidents

Doors on our driver's parked vehicle that are damaged when opened on the traffic side are considered preventable accidents. The driver is responsible to see that the traffic side is clear of traffic, before any doors on that side are opened.

In most cases, if our driver, while driving, strikes a parked vehicle's opening door it is considered preventable. Usually our driver can see from a sufficient distance that the parked vehicle is occupied, and should therefore, be prepared to stop, should move closer to the center line or change lanes.

It is a driver's responsibility to park the vehicle so that it will remain stationary. A runaway type accident is preventable and blaming such a collision on defective parking brakes or other holding devices are inadequate excuses. A good pre-trip inspection and maintenance program will eliminate most opportunities for this type of accident being the result of mechanical failure.

Accidents occurring when vehicles are properly and legally parked are considered non preventable. Accidents occurring while the vehicle was double-parked or in a "No Parking" zone are preventable.

#### Questions to consider:

1. Was the vehicle parked on the proper side of the road?
2. Was it necessary to park there or was there a safer, only slightly less convenient place nearby?
3. Did the driver have to park on the traveled part of the highway, on the curve, or on the hill?
4. When required, did the driver warn traffic by emergency warning devices?
5. Did the driver park parallel to the curb?
6. Was it necessary to park so close to an alley or directly across from a driveway?

### Collision with Obstructions

Obstructions can be avoided if the driver knows the height and width of the vehicle, pays attention to posted clearances, and takes the time to properly judge clearances.

### Cargo Accidents

The accident should be considered preventable if the investigation shows a mechanical defect of which the driver was aware, a defect the driver should have found by inspecting the vehicle, or the driver caused the accident by rough and abusive handling. It is a driver's responsibility to secure cargo properly to prevent shifting, loss, or damage. Cargo should be safely stowed to prevent flying objects that can strike or distract the driver.

## **FALL PROTECTION**

The company has the following requirements for fall protection at all of our worksites. ALL employees of MSB will be trained on Fall Protection. At any time, all employees can request re-training and/or additional training if necessary. This policy will be developed and monitored by the Safety Manager.

### **Fall Protection is Required**

When working where there is a hazard of falling more than 6 feet from the perimeter of a structure, unprotected sides and edges, leading edges, through shaft ways and openings, sloped roof surfaces steeper than 7:12, or other sloped surfaces steeper than 40 degrees not otherwise adequately protected. Fall protection is also required when working in boom lifts. Any equipment used for fall protection discussed below will be ANSI and/or ASTM certified.

### **Fall Protection Types**

One of the following four types of fall protection systems will be used when our employees are exposed to fall hazards in excess of 6 feet:

1. Standard guardrails, cables or floor hole covers
2. Personal fall arrest system
3. Positioning devices
4. Fall restraint systems

### **Standard Guardrails, Safety Cables, or Covers**

These are the easiest and most cost effective methods of providing fall protection and have a very high success rate. Standard guardrails, safety cables, floor hole and sky light covers are our preferred means of fall protection on job sites. The following rules will be followed when using them:

1. Railings shall be constructed of wood, or in an equally substantial manner from other materials, and shall consist of a top rail not less than 42 inches or more than 45 inches in height measured from the upper surface of the top rail to the floor, platform, runway or ramp level and a mid rail. The mid rail shall be halfway between the top rail and the floor, platform, runway or ramp. "Selected lumber" free from damage that affects its strength, shall be used.
2. Wooden posts shall be not less than 2 inches by 4 inches in cross section, spaced at 8-foot or closer intervals.

3. Wooden top railings shall be smooth and of 2-inch by 4-inch or larger material. Double, 1-inch by 4-inch members may be used for this purpose, provided that one member is fastened in a flat position on top of the posts and the other fastened in an edge-up position to the inside of the posts and the side of the top member. Mid rails shall be of at least 1-inch by 6-inch material.
4. The rails shall be placed on the side of the post that will afford the greatest support and protection.
5. All guardrails, including their connections and anchorage, shall be capable of withstanding a load of 13 pounds per linear foot applied either horizontally or vertically downward at the top rail.
6. Railings receiving heavy stresses from employees trucking or handling materials shall be provided additional strength by the use of heavier stock, closer spacing of posts, bracing, or by other means.
7. Floor, roof and skylight openings shall be guarded by a standard railing and toe boards or cover. Covering shall be capable of safely supporting the greater of the weight of a 200-pound person or the weight of worker(s) and material(s) placed thereon.
8. Coverings shall be secured in place to prevent accidental removal or displacement, and shall bear a pressure sensitized, painted, or stenciled sign with legible letters not less than one inch high, stating: "Opening--Do Not Remove." Markings of chalk or keel shall not be used.
9. Ladder way floor openings or platforms shall be guarded by standard railings with standard toe boards on all exposed sides, except at the entrance to the opening, with the passage through the railing either provided with a swinging gate or so offset that a person cannot walk directly into the opening.
10. Floor holes, into which persons can accidentally walk, shall be guarded by either a standard railing with standard toe boards on all exposed sides, or a floor hole cover of standard strength and construction that is secured against accidental displacement. While the cover is not in place, the floor hole shall be protected by standard railings.
11. Wall openings, from which there is a drop of more than 4 feet, and the bottom of the opening is less than 3 feet above the working surface, shall be guarded with either a standard rail or intermediate rail or both.
12. An extension platform outside a wall opening onto which materials can be hoisted for handling shall have side rails or equivalent guards of standard specifications. One side of an extension platform may have removable railings in order to facilitate handling materials.
13. Wall opening protection barriers shall be of such construction and mounting that, when in place at the opening, the barrier is capable of withstanding a load of at least 200 pounds applied in any direction (except upward).
14. All elevator shafts in which cages are not installed and which are not enclosed with solid partitions and doors shall be guarded on all open sides by standard railings and toe boards.
15. A full body harness and lanyard are required when using boom lifts.

## Personal Fall Arrest Systems

Personal fall arrest systems consist of a full body harness and a shock-absorbing lanyard attached to suitable anchorage. They are also an effective means of preventing fall accidents. The system does not actually stop you from falling, but catches you and safely stops you from hitting the level below. Fall arrest systems will be our preferred means of protection when standard guardrails, safety cables, or covers are not practical. The following rules, in addition to the manufacturer's requirements and OSHA regulations, will be observed:

1. Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body harnesses shall be made from synthetic fibers except when they are used in conjunction with hot work where the lanyard may be exposed to damage from heat or flame.
2. Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee attached, or shall be designed, installed, and used as part of a complete personal fall arrest system which maintains a safety factor of at least two; and under the supervision of a qualified person.
3. The attachment point of the body belt shall be located in the center of the wearer's back. The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level, or above the wearer's head.
4. Where practical, the anchor end of the lanyard shall be secured at a level not lower than the employee's waist, limiting the fall distance to a maximum of 4 feet.
5. Harnesses, lanyards, and other components shall be used only for employee protection as part of a personal fall arrest system and not to hoist materials.
6. Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a competent person to be undamaged and suitable for reuse.
7. The company shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.
8. Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.
9. Any lanyard, safety harness, or drop line subjected to in-service loading, as distinguished from static load testing, shall be immediately removed from service and shall not be used again for employee safeguarding.
10. Personal fall arrest systems shall not be attached to guardrails, unless the guardrail is capable of safely supporting the load.
11. Each personal fall arrest system shall be inspected not less than twice annually by a competent person in accordance with the manufacturer's recommendations. The date of each inspection shall be documented.

12. Personal fall arrest systems will be rigged such that an employee can neither free fall more than 4 feet, nor contact any lower level.
13. Personal fall arrest systems will bring an employee to a complete stop. They will also limit maximum deceleration distance an employee travels to 3.5 feet and have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet, or the free fall distance permitted by the system, whichever is less.

#### Positioning Device Systems

Positioning device systems are designed to allow employees to work with both hands free at elevated locations. By their very nature, they provide some level of fall protection. They are not as effective as railings or fall arrest systems. Positioning device systems may be used together with a fall arrest system for greater safety. Their use shall conform to the following provisions:

1. Positioning devices shall be rigged such that an employee cannot free fall more than 2 feet.
2. Positioning device systems shall be inspected prior to each use for wear, damage, and other deterioration, and defective components shall be removed from service.
3. Body belts, harnesses, and components shall be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.
4. The use of non-locking snap hooks is prohibited.
5. Anchorage points for positioning device systems shall be capable of supporting two times the intended load or 3,000 pounds, whichever is greater.

#### Personal Fall Restraint

Fall restraint systems are designed to prevent the wearer from reaching the edge or danger area and thus prevent them from falling. Body belts or harnesses may be used for personal fall restraint.

1. Body belts shall be at least one and five-eighths (1 5/8) inches wide.
2. Anchorage points used for fall restraint shall be capable of supporting 4 times the intended load.
3. Restraint protection shall be rigged to allow the movement of employees only as far as the sides of the working level or working area.

#### Recordkeeping

1. All training in Fall Protection will be recorded and kept in the safety records for the company for a minimum of 2 years.
2. All incidents involving fall protection will be investigated and properly documented



## **RIGGING AND MATERIAL HANDLING**

### **Purpose**

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The purpose of this training program is to ensure a safe and incident free lifting operation.

### **Scope**

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When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers COMPANY employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

### **Key Responsibilities**

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Management shall determine if this program is required for regulatory compliance within his/her region. Management shall select a training facility or use an in-house qualified trainer to supply and document the training.

Supervisors shall assist the managers in the tasks described above. The supervisor shall verify that each of their employees have the proper training before being involved in rigging operations.

Only qualified and trained personnel can attach or detach lifting equipment to loads or lifting loads.

### **Procedure**

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#### **General**

Only "qualified riggers" are allowed to attach any loads to a lifting hook and only "qualified operators" are allowed to operate a crane while engaged in lifting operations.

#### **Material Handling**

- Rigging equipment shall be inspected to ensure it is safe. Rigging equipment for material handling shall be inspected prior to use and on each shift and as necessary during its use to ensure that equipment is safe.
- Defective rigging shall be removed from service. Defective equipment shall not be used and removed from service immediately.
- Rigging equipment shall not be loaded in excess of its recommended safe working load. Rigging equipment shall not be loaded beyond its recommended safe working load and load identification shall be attached to the rigging.
- Rigging equipment, when not in use, shall be removed from the immediate work area. Rigging equipment not in use shall be removed from the immediate work area so as not to present a hazard to employees.
- Tag lines shall be used unless their use creates an unsafe condition.

- Latches will be in place on all hooks, eliminating the hook throat opening. Hooks on overhaul ball assemblies, lower load blocks, or other attachment assemblies shall be a type that can be closed and locked, eliminating the hook throat opening. Alternatively, an alloy anchor type shackle with a bolt, nut and retaining pin may be used.
- All employees shall be kept clear of loads about to be lifted and of suspended loads. No employee shall be allowed under a suspended load.

## **Training and Education**

I. COMPANY employees shall display their competency in the following topics:

- The selection of proper hardware (eye bolts, shackles, hooks, wire rope products, synthetic slings, chain slings, etc.) for the correct application (weight, hitches, angles, temperatures, center of gravity, etc.).
- The inspection of the selected hardware before, during and after the lift.
- The proper methods of securing the load, attaching the load to the hook, lifting the load, handling of the load during the movement of the load and lowering and placement of load.
- The proper storage of the rigging equipment.
- All COMPANY employees shall re-certify their training on a four (4) year basis.

## **Hearing/Noise Reduction**

### **Purpose and Scope**

Main Street Builders, LLC Hearing Conservation Program is designed to protect employees from hearing loss caused by uncontrolled exposure to hazardous noise by reducing employee noise exposures and providing appropriate hearing protection where this noise cannot be controlled.

The program includes the identification and control of hazardous noise within Main Street Builders, LLC's work areas through the use of engineering and administrative controls combined with the selection and use of hearing protection. It also details the areas of responsibility for managers/department heads, supervisors and employees within the company. Additionally, the program includes requirements for noise exposure surveys, audiometric testing, training in the selection and use of hearing protection, recordkeeping and program evaluation.

This program applies to all employees whose noise exposure levels equal or exceed an 8-hour time-weighted average (TWA) noise level of 85 dBA. All employees are required to follow the minimum procedures outlined in this program. Any deviations from this program must be immediately brought to the attention of the Program Administrator.

### **Program Responsibilities**

**Management.** The management of Main Street Builders, LLC is committed to the safety and health of its workers. Management supports the efforts of the Program Administrator by pledging financial and leadership support for the identification and mitigation of noise hazards. Management will regularly communicate with employees about this program.

**Program Administrator.** The Program Administrator reports directly to upper management and is responsible for conducting the hazard assessments, and the implementation, training and

administration of the program. The Program Administrator will monitor the results of the program to determine needed focus areas. The Program Administrator will also:

- Coordinate and supervise any noise exposure monitoring
- Identify employees to be included in the program
- Designate areas where hearing protection must be worn
- Coordinate and supervise audiometric testing
- Develop hearing protection policies
- Supervise hearing protection selection
- Supervise employee training
- Coordinate and supervise recordkeeping
- Evaluate the program annually
- Update the program whenever new equipment is introduced

**Supervisors.** Supervisor's responsibilities include:

- Notifying the Program Administrator if a change in the workplace results in higher noise exposure levels
- Ensuring that employees properly use and maintain their hearing protection
- Ensuring employees comply with the requirements of this program

**Employees.** All employees working in designated noise areas with noise exposures equal or exceeding the action level (85 dBA for an 8-hour shift, 84 for 9-hour, 83 for 10-hour and 82 for 12-hour) will be included in the program. A list of identified areas and employees can be found in

**Appendix A.** Employee responsibilities include:

- Notifying their supervisor if a change in the workplace results in exposure to higher noise levels
- Using noise control measures as required
- Using hearing protection as required
- Attending all training and audiometric testing
- Notifying their supervisor of any complicating medical problems as soon as possible

## Noise Monitoring

Noise exposure monitoring will be conducted to:

- Determine whether hearing hazards exist
- Determine whether noise presents a safety hazard by interfering with speech communication or recognition of audible warning signals
- Identify employees for noise control efforts and establish hearing protection practices
- Identify specific noise sources that require engineering and administrative controls
- Evaluate the success of noise control efforts

The Program Administrator will determine, with the assistance of area supervisors, which areas need monitoring. Monitoring will be performed using personal dosimeters. All monitoring for noise exposure levels will be conducted by a determined outside consulting firm. Employees will be allowed to observe or have a representative observe noise monitoring.

Monitoring will be conducted whenever there is a change in equipment, process or controls that may affect the noise levels. This includes the addition, removal or replacement of machinery, or change

to the building structure. Supervisors are responsible for informing the Program Administrator when these types of changes are implemented.

The result of the noise exposure monitoring will be recorded on the form and evaluations of the determined testing consulting firm.

If the results of any monitoring equals or exceeds the action level (85 dBA TWA<sub>8</sub>) The Program Administrator will:

- Notify in writing all employees working in areas at or above the action level
- Provide appropriate hearing protection for exposed employees
- Work with supervisors to ensure hearing protection is worn by employees at all times while in the noise area
- Investigate and implement feasible engineering and administrative controls to reduce the noise levels

## Noise Control

### Engineering and Administrative Controls.

Main Street Builders, LLC will first attempt to control existing noise hazards by implementing as many engineering controls as possible. If engineering controls are not feasible, then administrative controls will be examined.

### Hearing Protection.

When engineering and administrative controls are not feasible or do not eliminate the hazardous noise, hearing protection will be required. Additionally, management, supervisors and employees shall properly wear the prescribed hearing protection while working or traveling through any area that is designated as a high noise area in **Appendix C**.

Employees will be provided with an appropriate selection of hearing protection free of charge. The selection will include 3 distinct types; molded earplugs, foam earplugs and earmuffs. The hearing protection selection must:

- Reduce all employee exposures to a level below 85 dBA TWA<sub>8</sub>
- Include various sizes and shapes to fit ear canals
- Be appropriate for different working conditions which make hearing protection difficult to wear

The hearing protection selected and issued to all affected employees can be found in **Appendix D**.

To determine the hearing protection's effective protection level the following formulas will be used.

Type of Hearing Protection	Effective Protection
Single hearing protection	$\text{Estimated Exposure (dBA)} = \text{TWA (dBA)} - [(\text{NRR} - 7) \times 50\%]$

Dual hearing protection	$\text{Estimated Exposure (dBA)} = \text{TWA (dBA)} - \{[(\text{NRR} - 7) \times 50\%] + 5\}$
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### **Non-Required Hearing Protection.**

Employees who work in areas or at tasks that produce noise levels below the action level will be allowed to wear hearing protection for comfort reasons as long as it does not impact work communication or emergency announcements. The employee's supervisor will determine whether an employee can wear his/her personal hearing protection and will inspect the hearing protection prior to use. These devices will be supplied by the employee and all use and care will be the responsibility of the employee. If employee chooses to wear personal hearing protection for noise below the action level he/she is required to attend the Hearing Conservation Program training.

### **Audiometric Testing Program**

Employees in the Hearing Conservation Program will be provided baseline and annual audiometric testing at no cost to determine if a standard threshold shift has occurred. The test will take place within 6 months of an employee's first exposure at or above the action level and will be conducted by the determined testing/consulting firm.

Annual audiograms will be conducted within one year of the baseline and every year thereafter if an employee continues to be exposed to noise levels at or above the action level. The baseline and annual audiograms will be evaluated to establish a hearing threshold and annual retests will be compared to the baseline to determine if a standard threshold shift has occurred.

Before an audiometric test can be administered, the employee must have at least 14 hours without exposure to workplace noise (such as over a weekend) or worn hearing protection for this period. Employees will have access to their monitoring and audiometric testing records.

Employees who have experienced a standard threshold shift will be referred to a clinical audiologist or otologist for further examination. Such referrals may also be made if the audiological contractor suspects that medical problems of the ear have been caused or aggravated by hearing protection.

The determined testing/consulting firm will comply with all requirements of the OSHA standard on hearing conservation including test location, equipment calibration and recordkeeping requirements.

### **Standard Threshold Shift (STS).**

Any standard threshold shift will be evaluated by Main Street Builders, LLC's designated physician to determine if it is work-related. This evaluation will be done at no cost to the employee. If the annual audiogram shows that an employee experienced a standard threshold shift, a retest may be conducted within 30 days and the results of the retest will be used as the annual audiogram.

If a standard threshold shift has occurred:

- The employee's hearing protection will be refitted
- The employee will be retrained in the use of hearing protection and provided with hearing protection offering greater attenuation if necessary.

- The Program Administrator will determine whether the hearing loss should be recorded in the OSHA 300 form.
- The employee will be notified in writing by the determined testing/consulting firm within 21 days (See **Appendix E**).

## Employee Training

Employees included in the program will be required to attend initial and annual training on noise exposure and the Hearing Conservation Program. Topics will include:

- Effects of hazardous noise on hearing
- Purpose of hearing protection
- Advantages, disadvantages and attenuation of various types of hearing protection
- Instructions on selection, fitting, use and care of hearing protection
- The locations within the company where hearing protection is required
- Explanation of audiometric testing
- Review of the OSHA hearing protection standard
- Company rules and procedures concerning hearing protection and requirements for hazardous noise areas

Training of each employee will be documented using the Employee Training Record (**Appendix F**) and kept on file.

## Periodic Program Review

At least annually, the Program Administrator will conduct a program review to assess the progress and success of the program. Annual reviews will be documented with the form shown in **Appendix G**.

## Outside Contractors

Whenever outside personnel are contracted to work in areas where hearing protection is required, they will be informed of the hearing protection requirements by the Program Administrator or area supervisor. The noise exposure map will be shared with the contractor before any work commences.

## Recordkeeping

The following records for the Hearing Conservation Program will be maintained by the Program Administrator:

- Noise exposure monitoring – retained for 2 years
- Audiometric evaluation - retained for 30 years after employment termination

The record should include:

- Name and job classification of employee
  - Date of the audiogram
  - Examiner's name
  - Date of last acoustic or exhaustive calibration of audiometer
  - Employee's most recent noise exposure assessment
- Training documentation – retained for 2 years

- Implemented controls – retained for 2 years
- Selected hearing protection – retained for 2 years

## **RESPIRATORY PROTECTION**

Occasionally our work may necessitate the use of respirators to protect against air contaminants. Due to the limitations of respirators and their uncomfortable nature, the company will make every effort to provide other means of protection, such as local exhaust ventilation, or substitution of less hazardous material, prior to requiring employees to wear them.

When it is clearly impractical to remove harmful dusts, fumes, mists, vapors, or gases at their source, or where emergency protection against occasional and/or relatively brief exposure is needed, the company will provide, and the employee exposed to such hazard shall use, approved respiratory equipment.

Whenever respirators are required to be used to control harmful exposures, only respiratory equipment approved for that purpose shall be used and such equipment shall be approved by the National Institute for Occupational Safety and Health (NIOSH). Only parts approved for the specific respirator system shall be used for replacement.

General Respiratory Protection Guidelines:

1. Atmospheric contamination will be prevented wherever feasible through engineering controls such as enclosure or confinement of the operation, general and local exhaust ventilation, or substitution of less toxic materials. When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used.
2. The company shall identify and evaluate the respiratory hazard(s) in the workplace; this evaluation shall include a reasonable estimate of employee exposures to respiratory hazard(s)

and an identification of the contaminant's chemical state and physical form. Where we cannot identify or reasonably estimate the employee exposure, the atmosphere shall be considered to be immediately dangerous to life or health (IDLH).

3. Respirators shall be provided when such equipment is necessary to protect the health of the employee.
4. Only NIOSH-certified respirators shall be used. The respirator shall be used in compliance with the conditions of its certification.
5. The company will provide respirators that are applicable and suitable for the purpose intended. We shall select and provide an appropriate respirator based on the respiratory hazard(s) to which the worker is exposed and workplace and user factors that affect respirator performance and reliability.
6. Respirators shall be selected from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.
7. The safety program administrator is qualified by appropriate training or experience that is commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness.
8. The company will provide respirators, training, and medical evaluations at no cost to the employee.
9. The company will provide a medical evaluation to determine the employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the workplace. We may discontinue an employee's medical evaluations when the employee is no longer required to use a respirator.
10. The company will ensure that employees using a tight-fitting facepiece respirator pass an appropriate qualitative fit test (QLFT) or quantitative fit test (QNFT).
11. The company will establish and implement procedures for the proper use of respirators. These requirements include prohibiting conditions that may result in facepiece seal leakage, preventing employees from removing respirators in hazardous environments, taking actions to ensure continued effective respirator operation throughout the work shift, and establishing procedures for the use of respirators in IDLH atmospheres.
12. We shall provide each respirator user with a respirator that is clean, sanitary, and in good working order. The Supervisor or Manager shall ensure that respirators are cleaned and disinfected.
13. All filters, cartridges and canisters used in the workplace must be legibly labeled and color-coded with the NIOSH approval label that must not be removed.
14. Training and information will be provided to employees who are required to use respirators. The training will be comprehensive, understandable, and recur annually, or more often if necessary.
15. The safety program administrator shall conduct evaluations of the workplace to ensure that the written respiratory protection program is being properly implemented, and to consult with



employees to ensure that they are using the respirators properly.

16. Written information regarding medical evaluations, fit testing, and the respirator program shall be retained indefinitely. This information will facilitate employee involvement in the respirator program, assist us in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA.
17. Where respirator use is not required by a particular standard or hazard, the company may provide respirators at the request of employees or permit employees to use their own respirators, if we determine that such respirator use will not in itself create a hazard. If voluntary respirator use is permissible, we shall provide the respirator users with the information contained in Appendix D of section 5144 8CCR. ("Information for Employees Using Respirators When Not Required Under the Standard.")

#### Respirator Selection Requirements

The proper respirator for the job and hazard shall be selected. This selection will be made in accordance with ANSI Z88.2-1980 standards. The correct respirator shall be specified for each job. The individual issuing them shall be adequately instructed to insure that the correct respirator is used.

The manufacturers' recommendations and literature will also be reviewed to determine if the respirator provides protection against the expected contaminants. For instance, dust masks do not provide protection against gasses or vapors.

The safety program administrator or another qualified individual shall review and approve all breathing air compressors and installations for compliance with appropriate OSHA regulations and safety procedures prior to use.

#### Respirators for IDLH atmospheres.

We shall provide the following respirators for employee use in IDLH atmospheres:

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

#### Respirators for atmospheres that are not IDLH.

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

For protection against gases and vapors:

- An atmosphere-supplying respirator, or

- An air-purifying respirator, provided that the respirator is equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant; or if there is no ESLI appropriate for conditions in the workplace, we will implement a change schedule for canisters and cartridges that is based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life.

For protection against particulates:

- An atmosphere-supplying respirator; or
- An air-purifying respirator equipped with a filter certified by NIOSH under 30 CFR part 11 as a high efficiency particulate air (HEPA) filter, or an air-purifying respirator equipped with a filter certified for particulates by NIOSH under 42 CFR part 84; or
- For contaminants consisting primarily of particles with mass median aerodynamic diameters (MMAD) of at least 2 micrometers, an air-purifying respirator equipped with any filter certified for particulates by NIOSH.

#### Medical Evaluation Procedures

1. Employees shall not be assigned to tasks requiring the use of respirators unless it has been determined that they are physically able to perform the work while using the required respiratory equipment.
2. The company shall identify a physician or other licensed health care professional (PLHCP) to perform medical evaluations.
3. The medical evaluation shall include any medical tests, consultations, or diagnostic procedures that the PLHCP deems necessary to make a final determination.
4. Medical questionnaires and examinations shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee.
5. The employee shall have an opportunity to discuss the examination results with the PLHCP.
6. The following information must be provided to the PLHCP before the PLHCP makes a recommendation concerning an employee's ability to use a respirator:
  - The type and weight of the respirator to be used by the employee;
  - The duration and frequency of respirator use (including use for rescue and escape);
  - The expected physical work effort;
  - Additional protective clothing and equipment to be worn; and
  - Temperature and humidity extremes that may be encountered.
7. The company shall provide the PLHCP with a copy of this written respiratory protection program and a copy of the OSHA regulations if they do not already have them.
8. In determining the employee's ability to use a respirator, the company shall obtain a written recommendation regarding the employee's ability to use the respirator from the PLHCP. The recommendation shall provide only the following information:
  - Any limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether or not the

- employee is medically able to use the respirator;
  - The need, if any, for follow-up medical evaluations; and
  - A statement that the PLHCP has provided the employee with a copy of the PLHCP's written recommendation.
9. If the respirator is a negative pressure respirator and the PLHCP finds a medical condition that may place the employee's health at increased risk if the respirator is used, the company shall provide a powered air purifying respirator (PAPR) if the PLHCP's medical evaluation finds that the employee can use such a respirator; if a subsequent medical evaluation finds that the employee is medically able to use a negative pressure respirator, then we are no longer required to provide a PAPR.
10. The company shall provide additional medical evaluations that comply with the requirements of this section if:
- An employee reports medical signs or symptoms that are related to ability to use a respirator;
  - A PLHCP, supervisor, or the respirator program administrator informs the employer that an employee needs to be reevaluated;
  - Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation; or
  - A change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee.

#### Fit Testing

1. The company shall ensure that an employee using a tight-fitting face piece respirator is fit tested prior to initial use of the respirator, whenever a different respirator face piece (size, style, model or make) is used, and at least annually thereafter.
2. We shall conduct an additional fit test whenever the employee reports, or the employer, PLHCP, supervisor, or program administrator makes visual observations of, changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.
3. If after passing a QLFT or QNFT, the employee subsequently notifies the program administrator, supervisor, or PLHCP that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator face piece and to be retested.
4. The fit test shall be administered using an OSHA-accepted QLFT or QNFT protocol.

#### Usage Rules

1. The company shall not permit respirators with tight-fitting face pieces to be worn by employees who have:
  - Facial hair that comes between the sealing surface of the face piece and the face or that interferes with valve function; or
  - Any condition that interferes with the face-to-face piece seal or valve function.

2. If an employee wears corrective glasses or goggles or other personal protective equipment, we shall ensure that such equipment is worn in a manner that does not interfere with the seal of the face piece to the face of the user.
3. For all tight-fitting respirators, we shall ensure that employees perform a user seal check each time they put on the respirator.
4. Appropriate surveillance shall be maintained of work area conditions and degree of employee exposure or stress. When there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness, we shall reevaluate the continued effectiveness of the respirator.
5. Respiratory equipment shall not be passed on from one person to another until it has been cleaned and sanitized. Respirators individually assigned should be marked to indicate to whom it was assigned. This mark shall not affect the respirator performance in any way. The date of issuance should be recorded.
6. When not in use, respirators shall be stored to protect against dust, sunlight, extreme temperatures, excessive moisture, or damaging chemicals. Plastic zip lock bags are suitable for storage.
7. The company shall ensure that employees leave the respirator use area:
  - To wash their faces and respirator facepieces as necessary to prevent eye or skin irritation associated with respirator use; or
  - If they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece; or
  - To replace the respirator or the filter, cartridge, or canister elements.
8. If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece, we will replace or repair the respirator before allowing the employee to return to the work area.
9. For all IDLH atmospheres, the company shall ensure that:
  - One employee or, when needed, more than one employee is located outside the IDLH atmosphere;
  - Visual, voice, or signal line communication is maintained between the employee(s) in the IDLH atmosphere and the employee(s) located outside the IDLH atmosphere;
  - The employee(s) located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue;
  - The Supervisor or designee is notified before the employee(s) located outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue;
  - The Supervisor or designee authorized to do so by «Company\_Name», once notified, provides necessary assistance appropriate to the situation;
  - Employee(s) located outside the IDLH atmospheres are equipped with pressure demand or other positive pressure SCBAs, or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA; and either appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry; or equivalent means for rescue where retrieval equipment is not required.

## Maintenance, Inspection and Care of Respirators.

1. The company shall ensure that respirators are cleaned and disinfected using procedures recommended by the respirator manufacturer, provided that such procedures are of equivalent effectiveness to OSHA regulations. The respirators shall be cleaned and disinfected at the following intervals:
  - Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition;
  - Respirators issued to more than one employee shall be cleaned and disinfected before being worn by different individuals;
  - Respirators maintained for emergency use shall be cleaned and disinfected after each use; and
  - Respirators used in fit testing and training shall be cleaned and disinfected after each use.
2. All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall be packed or stored to prevent deformation of the facepiece and exhalation valve.
3. Emergency respirators shall be:
  - Kept accessible to the work area;
  - Stored in compartments or in covers that are clearly marked as containing emergency respirators; and
  - Stored in accordance with any applicable manufacturer instructions.
4. All respirators used in routine situations shall be inspected before each use and during cleaning;
5. All respirators maintained for use in emergency situations shall be inspected at least monthly and in accordance with the manufacturer's recommendations, and shall be checked for proper function before and after each use; and
6. Emergency escape-only respirators shall be inspected before being carried into the workplace for use.
7. The company shall ensure that respirator inspections include the following:
  - A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the facepiece, head straps, valves, connecting tube, and cartridges, canisters or filters; and
  - A check of elastomeric parts for pliability and signs of deterioration.
8. In addition to the requirements above, self-contained breathing apparatus shall be inspected monthly.
9. Air and oxygen cylinders shall be maintained in a fully charged state and shall be recharged when the pressure falls to 90% of the manufacturer's recommended pressure level. The employer shall determine that the regulator and warning devices function properly.
10. For respirators maintained for emergency use, the company shall:

- Certify the respirator by documenting the date the inspection was performed, the name (or signature) of the person who made the inspection, the findings, required remedial action, and a serial number or other means of identifying the inspected respirator; and
- Provide this information on a tag or label that is attached to the storage compartment for the respirator, is kept with the respirator, or is included in inspection reports stored as paper or electronic files. This information shall be maintained until replaced following a subsequent certification.

11. Repairs. The company shall ensure that respirators that fail an inspection or are otherwise found to be defective are removed from service, and are discarded or repaired or adjusted in accordance with the following procedures:

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

#### Training

1. The company shall ensure that each employee required to use a respirator can demonstrate knowledge of at least the following:

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

2. The training shall be conducted in a manner that is understandable to the employee.

3. The training shall be provided prior to requiring the employee to use a respirator in the workplace.

4. Retraining shall be administered annually, and when the following situations occur:

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

#### Program Evaluation

1. The safety program administrator shall conduct evaluations of the workplace as necessary to ensure that the provisions of the current written program are being effectively implemented and that it continues to be effective.
2. The safety program administrator shall regularly consult employees required to use respirators to assess the employees' views on program effectiveness and to identify any problems. Any problems that are identified during this assessment shall be corrected. Factors to be assessed include, but are not limited to:
  - Respirator fit (including the ability to use the respirator without interfering with effective workplace performance);
  - Appropriate respirator selection for the hazards to which the employee is exposed;
  - Proper respirator use under the workplace conditions the employee encounters; and
  - Proper respirator maintenance.

#### Recordkeeping

1. Records of medical evaluations must be retained and made available to regulatory agencies.
2. The company shall establish a record of the qualitative and quantitative fit tests administered to an employee including:
  - The name or identification of the employee tested;
  - Type of fit test performed;
  - Specific make, model, style, and size of respirator tested;
  - Date of test; and
  - The pass/fail results for QLFTs or the fit factor and strip chart recording or other recording of the test results for QNFTs.
  - Fit test records shall be retained for respirator users until the next fit test is administered.
3. Program records shall be made available upon request to affected employees and to governing or regulatory agencies for examination and copying.

#### Procedures for Cleaning Respirators.

1. Remove filters, cartridges, or canisters. Disassemble facepieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard and replace any defective parts.
2. Wash components in warm (43 deg. C [110 deg. F] maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.
3. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably

running water. Drain.

4. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:
  - Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 deg. C (110 deg. F); or,
  - Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 deg. C (110 deg. F); or,
  - Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.
5. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.
6. Components should be hand-dried with a clean lint-free cloth or air-dried.
7. Reassemble facepiece, replacing filters, cartridges, and canisters where necessary.
8. Test the respirator to ensure that all components work properly.

#### Mandatory Information for Employees Using Respirators When Not Required

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators



for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

## **ELECTRICAL & LOCK-OUT / TAG-OUT PROGRAM**

The company has developed the following procedures to protect our employees and reduce the risk of accidents. We will also conduct a periodic review of electrical safety, energy control procedures, and lock-out / tag-out, at least annually, to ensure that the procedure and the requirements of this section are being followed. Lock-out/Tag-out training will be performed annually and will be documented for each training received..

This procedure is binding upon all employees. All employees will be instructed in the significance of electrical safety, energy control procedures, and lock-out / tag-out. Each new employee shall be instructed by their Supervisor in the purpose and use of these procedures.

### **All Equipment and Installations**

1. Only trained, qualified, and authorized employees will be allowed to make electrical repairs or work on electrical equipment or installations.
2. All electrical equipment and systems shall be treated as energized until tested or otherwise proven to be de-energized.
3. All energized equipment and installations will be de-energized prior to the commencement of any work. If the equipment or installation must be energized for test or other purposes, special precautions will be taken to protect against the hazards of electric shock.
4. All equipment shall be locked out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy-isolating device bearing a lock.
5. Safety grounds shall always be used where there is a danger of shock from back feeding or other hazards.
6. Polyester clothing or other flammable types of clothing shall not be worn near electrical circuits.

Cotton clothing is much less likely to ignite from arc blast. Employees working on live circuits shall be provided Nomex or equivalent fire resistant clothing.

7. Suitable eye protection must be worn at all times while working on electrical equipment.
8. Always exercise caution when energizing electrical equipment or installations. Take steps to protect employees from arc blast and exploding equipment in the event of a fault.
9. All power tools will be grounded or double insulated. Tools with defective cords or wiring shall not be used.
10. Suitable temporary barriers or barricades shall be installed when access to open enclosures containing exposed energized equipment is not under the control of an authorized person.

#### Energized Equipment or Systems

Work shall not be performed on exposed energized parts of equipment or systems until the following conditions are met:

1. Responsible supervision has determined that the work is to be performed while the equipment or systems are energized.
2. Involved personnel have received instructions on the work techniques and hazards involved in working on energized equipment and appropriate equipment to perform the job has been provided.
3. Suitable personal protective equipment has been provided and is used. Suitable insulated gloves shall be worn for voltages in excess of 300 volts, nominal.
4. Suitable eye protection, including face shield and safety glasses or goggles, has been provided and is used.
5. Fire resistant clothing such as Nomex suits is worn.
6. Where required, suitable barriers, barricades, tags, or signs are in place for personnel protection.

After the required work on an energized system or equipment has been completed, an authorized person shall be responsible for:

1. Removing from the work area any personnel and protective equipment.
2. Reinstalling all permanent barriers or covers.

#### De-energized Equipment or Systems

A qualified person shall be responsible for completing the following before working on de-energized electrical equipment or systems, unless the equipment is physically removed from the wiring system:

1. Notifying all involved personnel.
2. Locking the disconnecting means in the "open" position with the use of lockable devices, such as

padlocks, combination locks or disconnecting of the conductor(s) or other positive methods or procedures which will effectively prevent unexpected or inadvertent energizing of a designated circuit, equipment or appliance.

3. Tagging the disconnecting means with suitable accident prevention tags.
4. Effectively blocking the operation or dissipating the energy of all stored energy devices which present a hazard, such as capacitors or pneumatic, spring-loaded and like mechanisms. This may require the installation of safety grounds.
5. Testing the equipment to ensure it is de-energized.

#### Energizing (or Re-energizing) Equipment or Systems

A qualified and authorized person shall be responsible for completing the following before energizing equipment or systems that have been de-energized:

1. Determining that all persons are clear from hazards which might result from the equipment or systems being energized including arc blast or explosions caused by unexpected faults.
2. Removing locking devices and tags. Only the employee who placed them may remove locking devices and tags. Locking devices and tags shall be removed upon completion of the work and after the installation of the protective guards and/or safety interlock systems.

#### Accident Prevention Tags

Suitable accident prevention tags shall be used to control a specific hazard. Such tags shall provide the following minimum information:

1. Reason for placing tag.
2. Name of person placing the tag and how that person may be contacted.
3. Date tag was placed.

#### Lock-out / Tag-out

Machinery or equipment capable of movement shall be stopped and the power source de-energized or disengaged, and locked out. If necessary, the moveable parts shall be mechanically blocked or secured to prevent inadvertent movement during cleaning, servicing or adjusting operations unless the machinery or equipment must be capable of movement during this period in order to perform the specific task. If so, the hazard of movement shall be minimized.

Equipment or power driven machines equipped with lockable controls, or readily adaptable to lockable controls, shall be locked out or positively sealed in the "off" position during repair work and setting-up operations. In all cases, accident prevention signs and/or tags shall be placed on the controls of the equipment or machines during repair work.

The company will provide a sufficient number of accident prevention signs or tags and padlocks, seals or other similarly effective means that may be required by any reasonably foreseeable repair.

### Sequence of Lockout Procedure

1. Notify all affected employees that a lockout is required and the reason therefore.
2. If the equipment is operating, shut it down by the normal stopping procedure (such as: depress stop button, open toggle switch).
3. Operate the switch, valve, or other energy isolating devices so that the energy source(s) (electrical, mechanical, hydraulic, other) is disconnected or isolated from the equipment.
4. Stored energy, such as that in capacitors, springs, elevated machine members, rotating fly wheels, hydraulic systems, and air, gas, steam or water pressure, must also be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down.
5. Lockout energy isolating devices with an assigned individual lock.
6. After ensuring that no personnel are exposed and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate. CAUTION: Return operating controls to neutral position after the test.

### Procedure Involving More Than One Person

If more than one individual is required to lock out equipment, each shall place his/her own personal lock on the energy isolating device(s). One designated individual of a work crew or a Supervisor, with the knowledge of the crew, may lock out equipment for the whole crew. In such cases, it may be the responsibility of the individual to carry out all steps of the lockout procedure and inform the crew when it is safe to work on the equipment. Additionally, the designated individual shall not remove a crew lock until it has been verified that all individuals are clear.

### Testing Equipment during Lockout

In many maintenance and repair operations, machinery may need to be tested, and for that purpose energized, before additional maintenance work can be performed. This procedure must be followed:

1. Clear all personnel to safety.
2. Clear away tools and materials from equipment.
3. Remove lockout devices and re-energize systems, following the established safe procedure.
4. Proceed with tryout or test.
5. Neutralize all energy sources once again, purge all systems, and lockout prior to continuing work.

Equipment design and performance limitations may dictate that effective alternative worker protection be provided when the established lock-out procedure is not feasible.

### Restoring Equipment to Service

After the work is completed and the equipment is ready to be returned to normal operation, this

procedure must be followed:

1. Remove all non-essential items.
2. See that all equipment components are operationally intact, including guards and safety devices. Repair or replace defective guards before removing lockouts.
3. Remove each lockout device using the correct removal sequence.
4. Make a visual check before restoring energy to ensure that everyone is physically clear of the equipment.

## **ASSURED EQUIPMENT GROUNDING CONDUCTOR PROGRAM**

It is the policy of Main Street Builders, LLC to establish and implement an assured equipment grounding conductor program on construction sites covering all cord sets, receptacles which are not a part of the permanent wiring of the building or structure, and equipment connected by cord and plug which are available for use or used by employees. this policy shall apply to all construction sites not equipped with ground fault circuit interrupters in accordance with OSHA standard 1926.400 (h)

Supervisors are designated to implement the assured equipment grounding conductor program: 1926.32 (f) defines competent person as one who is capable of identifying existing and predictable hazards i the surrounding area or working conditions which are unsanitary, hazardous or dangerous to employees, and who is authorized to take prompt corrective measures to eliminate them.

Supervisors will be responsible and accountable for the following:

Each cord set, attachment cap, plug and receptacle of cord set and any equipment connected by cord and plug, except cord sets and receptacles which are fixed and not exposed to damage, shall be visually inspected before each day's use for external defects, such as deformed or missing pins, or insulation damage, and for indication of possible internal damage. Equipment found damaged or defective may not be used until repaired.

Supervisors are responsible for tests on all cord sets, receptacles which are not a part of the permanent wiring of the building or structure, and cord and plug connected equipment repaired to be grounded. Tests shall be documented on the log for assured equipment grounding conductor program and shall be on the jobsite for inspection by OSHA officials and any affected employee. Equipment that does not meet prescribed test shall not be put into service. The following tests shall be performed:

- A. All equipment grounding conductors shall be tested for continuity and shall be electrically continuous.
- B. Each receptacle and attachment cap or plug shall be tested for correct attachment of the equipment grounding conductor. The equipment grounding shall be connected to its terminal.

In accordance with OSHA Construction Safety and health Standards 1926.21 Safety Training

and Education, supervisors shall attend such training sessions as the company may deem necessary.

A copy of this policy shall be at the jobsite for inspection and copy by OSHA officials and any affected employee. Management retains the authority to designate that certain jobs comply with regulation 1926.400 (h) by use of ground fault circuit interrupters in lieu of the program established above. A copy of the completed forms will be kept on each applicable jobsite for inspection purposes.

**WRITTEN DESCRIPTION**  
**ASSURED EQUIPMENT GROUNDING CONDUCTOR PROGRAM**

**I. Scope**

This procedure describes the requirements to assure the installation and maintenance of equipment grounding conductors for temporary wiring on construction sites in accordance with paragraph (c) (30 of part 1910.309 of the Occupational Safety and Health Standard and paragraph (h) (3) of part 1926.400 of the Safety and Health regulations for construction.

**II.. Policy**

Ground fault circuit interrupters (GFCI's) are not required for 120 volt, single phase, 15- and 20-ampere receptacles outlets where all of the requirements of this procedure are implemented at the construction site. Employees shall not use any equipment which has not met the requirements of this procedure.

**III.. Jobsite Information**

A. Name or description of construction site: \_\_\_\_\_

B. Employer complying with this procedure is \_\_\_\_\_

C. Person designated to implement the procedure is \_\_\_\_\_

**IV. Requirements**

Equipment grounding conductors shall be installed and maintained in accordance with this procedure.

**A Installation** - Equipment grounding conductors shall be installed as follows:

1. All 120 volt, single phase, 15- and 20- ampere receptacles shall be of the grounding type and their contacts shall be grounded by connection to the equipment grounding conductor of the circuit supply the receptacle i accordance with the applicable requirements of the National Electrical Code.
2. All 120 volt cord sets (extension cords) shall have an equipment grounding conductor which shall be connected to the grounding contacts of the connector(s) on each end of the cord.
3. The exposed concurrent-carrying metal parts of the 120 volt cord and plug-connected tools and equipment that are likely to become energized shall be grounded in accordance with the applicable requirements of the National Electrical Code.

**B. Visual Inspection**

Employees shall be instructed to visually inspect receptacle, flexible cord sets (extension cords), except those that are fixed and not exposed to damage, and equipment connected by cord and plug before each day's use for external defects such as deformed or missing pins or insulation damage and for indication of possible internal damage. Where there is evidence of damage, the damaged item shall be taken out of service and tagged until tested and any required repairs have been made.

**C.** All 120 volt, single phase, 15 and 20- ampere receptacles which are not a part of the permanent wiring of the building or structure, 1220 volt flexible cord sets, and 120 volt cord and plug connected equipment required to be grounded shall be tested as follows:

1. All equipment grounding conductors shall be tested for continuity and shall be electrically continuous.
2. Each receptacle and attachment ca or plug shall be tested or correct



attachment of the equipment grounding conductor. The equ

equipment grounding conductor shall be connected to its proper terminal.

#### **D. Testing Schedule**

All required tests shall be performed:

1. Before first use
2. Before equipment is returned to service following any repairs.
3. Before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over)
4. At intervals not to exceed 3 months, except that cord sets and receptacle which are fixed and not exposed to damage shall be tested at intervals not exceeding 6 months.

#### **E. Test Records**

Test verification shall be by means of numeric or color coded marking tape on the receptacle, cord set or equipment to identify that it has passed the test and to indicate the date (month or quarter) in accordance with section 5.0 Coding Scheme.

#### **5. Color Scheme**

Coding schemes for assured equipment grounding conductor test record.

<b><i>Month Or Quarter</i></b>	<b><i>Color Scheme Quarterly</i></b>	<b><i>Monthly</i></b>	<b><i>Numeric Scheme Monthly</i></b>
JANUARY	WHITE	WHITE	1
FEBRUARY		WHITE/YELLOW	2
MARCH		WHITE/BLEUE	3
APRIL	GREEN	GREEN	4
MAY		GREEN/YELLOW	5
JUNE		GREEN/BLEUE	6
JULY	RED	RED	7
AUGUST		RED/YELLOW	8
SEPTEMBER		RED/BLEUE	9
OCTOBER	ORANGE	ORANGE	10
NOVEMBER		ORANGE/YELLOW	11
DECEMBER		ORANGE/BLEUE	12
REPAIR OR INCIDENT	BROWN	BROWN	0

### ASSURED EQUIPMENT GROUNDING CONDUCTOR PROGRAM

COMPANY NAME: \_\_\_\_\_

SHOP ADDRESS: \_\_\_\_\_

ID OF EQUIP TESTED	DATE TESTED	ACTION, IF ANY	REASON- A-B-C-D	TESTED BY (SIGNATURE)

Reason For Test:

- A. Before First Use
- B. Before equipment is returned to service following any repairs
- C. Before Equipment is used after any incident which can  
Reasonable be suspected to have caused damage
- D. At intervals not to exceed 3 months, except that cord sets and  
Receptacles which are fixed and not exposed to damage shall  
Be tested at intervals not exceeding 6 months

Company Signature: \_\_\_\_\_

## CONFINED SPACE OPERATIONS

Occasionally in our work, we may encounter confined spaces. Confined space work requires special safety precautions to ensure that employees are not overcome by dangerous air contaminants or oxygen deficiency. In some cases, there may be fire or explosion hazards in confined spaces that do not exist in open areas. Many workers have been killed or seriously injured in confined spaces. To avoid this, employees must adhere to the following rules. This section prescribes minimum standards for preventing employee exposure to dangerous air contamination and/or oxygen deficiency in confined spaces. In some cases, extra precautions may be necessary. As always, if you are unsure, ask for assistance. All employees will be offered/provided confined space training.

### Definitions

A confined space has the following properties:

1. Existing ventilation is insufficient to remove dangerous air contamination and/or oxygen deficiency that may exist or develop.
2. Ready access or egress for the removal of a suddenly disabled employee is difficult due to the location and/or size of the opening(s).
3. The area is not designed for continuous human occupancy.

Dangerous air contamination means an atmosphere presenting a threat of causing death, injury, acute illness, or disablement due to the presence of flammable and/or explosive, toxic, or otherwise injurious or incapacitating substances.

Dangerous air contamination due to the flammability of a gas or vapor is defined as an atmosphere containing the gas or vapor at a concentration greater than 20 percent of its lower explosive (lower flammable) limit.

Dangerous air contamination due to a combustible particulate is defined as a concentration greater than 20 percent of the minimum explosive concentration of the particulate.

Dangerous air contamination due to the toxicity of a substance is defined as the atmospheric concentration immediately hazardous to life or health. This definition of dangerous air contamination due to the toxicity of a substance does not preclude the requirement to control harmful exposures to toxic substances at concentrations less than those immediately hazardous to life or health.

Oxygen deficiency. An atmosphere containing oxygen at a concentration of less than 19.5 percent by volume.

Oxygen rich. An atmosphere containing oxygen at a concentration of more than 22 percent by volume. This creates additional fire hazards.

Stand-By Situation. Standby-By situations are situations when the work in the confined space is deemed dangerous and in the event something goes wrong during work, the rescue need is immediate. It is MSB intention to NOT participate in Stand-by Confined Space Situations.

Rescue Available. Rescue Available is a situation when the work in the confined space is deemed NOT dangerous and in the event that something goes wrong during the work, the rescue need is

NOT immediate and can have a window of 10 minutes before rescue is needed.

#### Typical Confined Spaces:

- Vaults
- Pits
- Tubs
- Vats
- Ducts
- Boilers
- Silos
- Sewers
- Compartments
- 

#### Typical Procedures:

- MSB requires an attendant be present outside the confined space while trained workers are in/working in the confined space.
- Confined spaces must be marked with proper barricades/warning device/tape so ALL persons present know the space exists.
- An attendant may monitor multiple locations ONLY if the work in the confined space is not deemed to be a Stand-By situation. Multiple locations can be monitored by an attendant ONLY in Rescue Available situations.
- All supervisors must communicate and monitor Confined Space work.
- All entrants into confined spaces must be trained in confined spaces and must be aware of the work and the nature of the space. It is the entrants best interest to ask the supervisor any and all questions they may have about the confined space.
- All assigned attendants must be aware of the policy and procedure of limits to attending single and multiple spaces. All attendants must confer with the trained supervisor on this policy.
- Rescue teams must be notified of the possible need and possible severity prior to work in a confined space. This will help improve reaction time if needed. Attendants and supervisors must be aware of all phone numbers/policies of contacting the identified rescue personnel/company. The rescue team must be educated of the exact location and fastest way to get to the confined space prior to work being done.
- A confined space entry permit must be completed prior to work in a confined space. This permit will need to be available to all personnel and rescue teams assigned.
- Rescue personnel will be defined by the MSB Safety Manager prior to any confined space work and will need to be presented on the entry permit.
- If multiple employers/companies are working in the same space, it is MSB's responsibility to make sure ALL companies/persons are trained and following this plan. It is necessary to review the other companies plans.
- After work is completed in the confined space, the MSB supervisor needs to complete a report summarizing the work and the happenings of the work. It is also necessary to secure any permanent barricades present before the work.
- ALL employees and representatives of MSB can request additional training and monitoring at any time.

#### Prior to Confined Space Entry:

1. Written, understandable operating and rescue procedures shall be developed and shall be provided to affected employees. The operating procedures shall include provision for the surveillance of the surrounding area to avoid hazards such as drifting vapors from tanks, piping and sewers.
2. All employees, including standby persons if needed, will be trained in the operating and rescue procedures, including instructions as to the hazards they may encounter.
3. Any lines, pipes or hoses which may convey flammable, injurious, or incapacitating substances into the space shall be disconnected, blinded, or blocked off by other positive means to prevent the development of dangerous air contamination and/or oxygen deficiency within the space. The disconnection or blind shall be so located or done in such a manner that inadvertent reconnection of the line or removal of the blind are effectively prevented.
4. The space shall be emptied, flushed, or otherwise purged of flammable, injurious or incapacitating substances to the extent feasible.
5. The air shall be tested with an appropriate device or method to determine whether dangerous air contamination and/or an oxygen deficiency exists and a written record of such testing results shall be made and kept at the work site for the duration of the work. Affected employees and/or their representative shall be afforded an opportunity to review and record the testing results.
6. Where interconnected spaces are blinded off as a unit, each space shall be tested and the results recorded. The most hazardous condition found shall govern the entry procedures to be followed.
7. Barriers and barricades will be used while MSB is subject to confined spaces as to warn and prevent unauthorized employees into the identified confined space. As always, beware of any marked areas and do not enter prior to approval from the supervisor or trained confined space employee.

#### Confined Space Entry if Tests Show No Hazard

If dangerous air contamination and/or oxygen deficiency does not exist within the space, as demonstrated by tests performed in accordance with the pre-entry procedures, entry into and work within the space may proceed subject to the following provisions:

1. Air testing, in accordance with the pre-entry procedures, shall be conducted with sufficient frequency to ensure that the development of dangerous air contamination and/or oxygen deficiency does not occur during the performance of any operation.
2. Work stops, employees exit, and additional precautions are taken if dangerous air contamination and/or oxygen deficiency does develop.

#### Confined Space Entry if Tests Show Hazards are Present or are Likely to Develop

Where the existence of dangerous air contamination and/or oxygen deficiency is demonstrated by tests performed in accordance with the pre-entry procedures or if the development of dangerous air contamination and/or an oxygen deficiency is imminent, the following requirements shall also apply:

1. Existing ventilation shall be augmented by appropriate means.
2. When additional ventilation has removed dangerous air contamination and/or oxygen deficiency as demonstrated by additional testing conducted (and recorded), entry into and work within the space may proceed.
3. No source of ignition shall be introduced until the implementation of appropriate provisions of this section have ensured that dangerous air contamination due to flammable and/or explosive substances does not exist.
4. Whenever oxygen-consuming equipment such as welding torches, furnaces and the like are to be used, measures shall be taken to ensure adequate combustion air and exhaust gas venting.
5. To the extent feasible, provision shall be made to permit ready entry and exit.
6. Where it is not feasible to provide for ready exit from spaces equipped with automatic fire suppression systems employing harmful design concentrations of toxic or oxygen-displacing gases, or total foam flooding, such systems shall be deactivated. Where it is not practical or safe to deactivate such systems, the use of respiratory protective equipment, such as SCBA, shall apply during entry into and work within such spaces.

#### Confined Spaces Where Dangerous Air Contamination Cannot be Removed by Ventilation

It is the policy of the company to only work in a confined space if it can be made safe by the means listed above. We will not work in confined spaces where there is an ongoing hazard of air contamination or oxygen deficiency. These operations require extra measures and precautions beyond our immediate ability to perform. If such work does become necessary, a separate program will be developed.

#### Record Keeping

1. All employees will be offered training. If training is accepted then employees will be asked to document that they attended such training. Documentation of training will be kept by MSB. Annual training will be done for all MSB employees.

## **AERIAL LIFTS/PLATFORMS**

#### Overview:

Aerial lifts are commonly used in construction, inspection, athletic events and repair services to lift MSB employees to an elevated work position. Proper operation and use of aerial lifts can make completion of tasks at elevation, safer and more efficient. However, unsafe use, operation and aerial lift work practices can result in serious injury. This program has been developed due to the hazards associated with improper use and the concern for the safety of individuals in and around this type of equipment. In addition, this program outlines general, operating, maintenance, inspection and training requirements governing safe aerial lift use.

Operate Aerial Lifts / Elevating Work Platforms must:

1. Select and then purchase or rent appropriate equipment for job tasks based upon an work environment and job-task hazard analysis,
2. Train and license personnel who operate their specific type of owned / rented equipment,
3. Conduct documented safety inspections and preventive maintenance of the equipment,
4. Assure operators adhere to specific safe-work practices whenever using these types of powered industrial equipment,

**Definitions:**

*Aerial Device:* Any vehicle mounted or a self propelled device that is telescoping extensible, articulating, or both, and is primarily designed to position personnel.

*AL / EWP:* Acronym for "Aerial Lift/Elevating Work Platform"

*Boom:* An elevating member, the lower end of which is so attached to a rotating or non-rotating base that permits elevation of the free end in the vertical plane.

*Counter Weight:* The rear section or area of the lift which is usually made of solid steel, and/or combination of steel and the weight of the battery on electric lifts, that counter balances the boom leverage and basket load.

*Data Plate:* Manufacturer's equipment specification and information data, which includes basket load rating/lift capacity, lift heights, vehicle weight, and vehicle attachments. This plate is required to be affixed to all Aerial Lift Equipment by regulatory code. This is the vehicle operator's primary source of basic information about their vehicle for safe-work and use planning.

*Emergency Lowering Means:* Any elevating work platform equipped with a powered elevating assembly, and having a platform height exceeding 60 inches, must be supplied with safe means of lowering the basket or platform during an emergency or malfunction.

*Fall Protection:* An approved full-body safety harness with lanyard is to be worn at all times and attached to a secure anchor point when drivers or personnel are using a boom-type lift or vehicle mounted lift. Fall protection must also be worn when using scissor lifts on uneven surfaces or near locations with tip-over hazards.

*Guard Rails:* Railing around the perimeter of the work platform. This railing consists of a top rail between 39" – 45" with a mid-rail. Units with the top rail less than 39" must have fall protection in use to operate.

*Lower Controls:* Operating controls located on the base of the unit which can be switched to override the basket or platform control during an emergency.

*Mast:* Part of the lifting mechanism to which the hydraulic lift cylinder or worm drive is attached that supports the basket as it is lifted up and down.

*Out Riggers:* Extendable legs that are either manually set in place or, in some cases, hydraulically extended to give added stability to the unit base.

*Platform:* Any personnel carrying device (bucket, basket, cage, stand, tub, or equivalent) which is a component of an aerial device.

*Upper Controls:* Operating controls located on the basket or work platform of the unit. These controls can only be overridden with the operator's permission or in case of an emergency.

**Requirements:**

OSHA Standard 29CFR 1910.68 (Powered Platforms, Man lifts, and Vehicle-Mounted Work Platform)

OSHA Standard 29CFR 1926.453 (Aerial Lifts)

ANSI/SIA A92.6 – 2006 (Self-Propelled Elevated Work Platforms)

**Types of Aerial Lift/Elevated Work Platforms**



#### Articulating Boom Lift :

An aerial device with two or more hinged boom sections.

An articulating boom lift is a type of crane that uses hydraulic cylinders to rise and lower and allows a driver to maneuver the boom in any given direction directly from the work platform without lowering the basket. The articulating boom lift is specifically made with at least two boom sections that are hinged and it unhinges at certain points, this makes reaching higher elevations easier.

Articulating boom lifts typically operate with an electric motor or internal combustion as their power source. It can not only rotate 360 degrees, but also access spots higher than most straight or telescoping boom lifts. They are narrow enough to be maneuvered easily through aisles and crowded work areas and are often found being used in construction, landscaping and plant maintenance.

*Note: Fall Protection is required when operating this Lift.*

#### Elevating Work Platform :

A device designed to elevate a platform in a substantially vertical axis. This device is stationary once setup and cannot be moved. Aerial or Personnel lift is an aerial lift that combines the portability of a ladder with the stability of an aerial work platform.

Simple to set up and easy to roll through doorways with a rigid vertical mast and leveling jack that offer stability for the user, the vertical mast raises the work platform to the desired height. Reaching heights of 47 feet and lifting up to 300 lbs, these personnel lifts are more stable than a ladder. It is ideal for indoor use and is suitable for fragile surfaces.

*Note: Fall Protection is not required when operating this equipment, but is highly recommended.*

#### Extensible Boom Platform :

An aerial device (except ladders) with an extensible boom. Telescopic booms with personnel platform attachments are considered to be extensible boom platforms. If you are looking for a boom lift with an extended reach capability then a telescopic boom lift is right for you.

Operable from the work platform, even when extended, some telescopic boom lifts are equipped with a jib that provides extra reach and range. Reaching up to 140' and offering a greater horizontal outreach than any other type of aerial platform, these boom lifts are often used in construction and industrial applications such as road building, bridge work, painting, and landscaping.

*Note: Fall Protection is required when operating this equipment.*

#### Scissor Lift :

A device designed to elevate a platform in a substantially vertical axis. This device can also be driven by an operator inside the work platform and is generally designed to carry more than one person.

Also known as a table lift, a scissor lift is an industrial lift that has been modified for retail and wholesale setting. Powered by hydraulics, diesel or an electric motor, this lift will reach anywhere from 21 to 62 feet. It is basically a platform with wheels that acts like a forklift. Portable and effective, this is a lift is useful for completing tasks which require speed and mobility.

The scissor lift is unique in that it doesn't use a straight support to raise workers into the air, instead, the scissor lift platform raises when the linked, folding supports underneath it draw together, stretching it upward. The scissor lift's design keeps it from traveling with a constant speed, instead traveling faster in the middle of its climb

and slower as it elevates. It can be seen in nearly all manufacturing and production workplaces, including construction, assembly, and vehicle repair.

*Note: Fall Protection is not required when operating this Lift, but is highly recommended.*

#### Trailer Mounted Lift :

A device that can be towed by a vehicle to a work site, then un-hitched. These units have extendable or folding outriggers to give stability while being operated. These are compact cranes that can lift up to 30,000 lbs. Designed for both indoor and outdoor job sites, these lifts feature telescoping booms and a load deck for material handling.

They are made for the work place and are self propelled, usually capable of picking up a load and traveling with it. The crane is equipped with a flat deck that is designed to be used as a carrying surface they are perfect for lifting applications requiring a compact, low-profile crane that will clear overhead obstructions and maneuver in tight spaces.

*Note: Fall Protection is required when operating this Lift.*

#### Vehicle Mounted Lift :

These devices typically have a Bucket in place of a basket, which is designed for one person. Vehicle must have the brakes set, wheels chocked, and outriggers in place while operating this device. Also Frequently used by contractors due to their lightweight structure and maneuverability, they are ideal for congested job sites.

As the name states, tow able boom lifts are tow able, easily transportable and ready to use in minutes. Easy to maintain due to having less parts, they are easy to break down. Most have an articulating boom, but some models have a telescopic arm. They are light weight enough to use on lawns, slate, or gymnasium floors and are perfect for home renovations and property management needs.

*Note: Fall Protection is required when operating this Lift.*

#### Operating Procedures / Hazard Identification and Controls:

Prior to operation at the beginning of each work-shift, Operators must review and assess the following equipment/work area conditions:

1. Review work area for hazards, and remove/control them prior to operation.
2. Always conduct an environmental hazard assessment prior to selecting/using AL/EWP equipment.
3. Only use AL/EWP equipment designed to safely work in the work-area conditions observed.
4. Review operating instructions, warnings, and precautions for the types of AL/EWP being operated.
5. Prior to operation at the beginning of the work-shift, inspect and document the equipment's proper function of controls and instrumentation. Do they operate correctly?
6. Inspect engine or motor operation.
7. Inspect steering and maneuvering.
8. Familiarize yourself with visibility.
9. Inspect basket or platform capacity and equipment stability.
10. Complete and document the inspection process using the appropriate inspection form (in "Attachments").
11. Check fuel and/or charging of batteries, and refuel/recharge as needed.
12. Review and understand equipment operating limitations.
13. Review other operating instructions, warnings, or precautions listed in the operator's manual for the types of AL/EWP that you will operate.

14. Alert all persons in the work area of intended work activities and hazards.
15. Always face the direction of travel.
16. Don't travel horizontally with the platform elevated or extended.
17. Don't exceed the basket or platform capacity.
18. Position equipment on a firm level surface and minimize blocks or ramps for leveling the AL/EWP equipment.
19. Always set outriggers prior to use if the AL/EWP is equipped with them.
20. Wear proper safety harnesses and only tie-off to the work platform's fall protection tie-off point. (Refer to "Types of Lifts" and the Inspection Forms in the "Attachments" to determine if safety harnesses are required to be worn.)
21. "Barrier off" the lift swing work-area below the AL/EWP equipment's work zone.
22. Don't climb on guardrails, climb on ladders or stand on other items when working on the platform.
23. Practices good housekeeping when working in and around the platform.
24. Never drop or throw objects to or from the work platform.
25. Always look below platform and confirm it's safe to lower the equipment before lowering the equipment.
26. Never lean the platform on or against structures.
27. Never use the boom to push against something, or try and pull the AL / EWP equipment along in a horizontal direction.

**Responsibilities:**

Must implement and administer the Aerial Lift Safety program.

Review the Aerial Lift Safety program annually for compliance and effectiveness.

Verify that all employees who operate or work near aerial lifts are properly trained.

Maintain written records of operator training on each model of aerial lift and the name of the trainer.

Maintain written records of all inspections performed by the aerial lift owner, including the date any problems found, the date when fixed, and the name of the person performing the repairs.

Maintain written records of the name and purchaser of each aerial lift.

Make recommendations for revisions if necessary.

Establish expected operating conditions for aerial lift and send to OHS to review prior to operation

**Supervisors:**

Coordinate employee training, and certify that all operators receive annual training including, but not limited to, the items listed in Section 8.0 of this document.

Ensure that only trained and qualified individuals use aerial lifts.

Verify employee compliance with the principles and practices outlined in the Aerial Lift Safety Program.

Provide specific operational training for each aerial lift.

Observe the operation of aerial lifts, and correct unsafe practices.

**Operators:**

Read the Aerial Lift Safety Program.

Complete the Daily Pre-Use Inspection Checklist before operating any aerial lift.

At least annually review the procedures outlined in Section 6.0 of this document.

Observe the operation of the aerial lift, and report unsafe practices to your supervisor.

**Occupational Health and Safety Coordinator:**

Annually review and update the Aerial Lift Safety Program as necessary.

Provide orientation and initial training as requested by company departments and/or contractors.

Provide the general safety training requirements for program.  
Monitor the effectiveness of program by receipt of copies of inspection checklists.  
Evaluate designated areas for aerial lift use.  
Define appropriate eyewash facilities for battery changing/charging areas.  
Observe the operation of aerial lifts, and report unsafe practices to the appropriate supervisor.

#### Aerial Lift Procedures:

##### Pre-Use Inspection:

Prior to the operation of any aerial lift the Pre-Use Inspection Checklist found in bottom of attachment must be completed. This applies at the beginning of every work period, and whenever a new equipment operator takes control of the aerial lift.

Any safety defects (such as hydraulic fluid leaks; defective brakes, steering, lights, or horn; and/or missing fire extinguisher, lights, seat belt, or back-up alarm) must be reported for immediate repair. They must also be locked and tagged, and taken out of service.

##### General Safe Work Practices:

Operators shall not wear any loose clothing or any accessory that can catch in moving parts.

Before machine is started, the operator must walk completely around the machine to ensure everyone and everything is clear of the machine.

Articulating boom and extendable boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.

Modifications and additions that may affect the capacity or safe operation of an aerial/scissor lift are strictly prohibited without the manufacturer's written approval. Capacity, operation, and maintenance instruction markings will be changed as necessary if the manufacturer approves a modification.

The insulated portion (if applicable) of an aerial / scissor lift shall not be altered in any manner that might reduce its insulating value.

Any signs, plates, or decals which are missing or illegible must be replaced.

If the aerial / scissor lift becomes disabled, a "out of service" tag or equivalent shall be attached to the controls inside the platform in a conspicuous location.

Aerial/scissor lift devices with noted, reported deficiencies shall not be operated until repairs are made and equipment is authorized for use.

Operators must report all accidents, regardless of fault and severity, to their Supervisor.

##### Safe Work Practices Before Operation:

1. Consideration shall be given to the amount of wind. Follow the manufacturer's instruction regarding operation in windy conditions. As a general rule aerial lifts shall not be operated in winds exceeding 25mph although this can vary depending on the model of equipment.

At 20mph wind speeds or anticipated gusts, lifts will be lowered to a maximum height of 20 feet.

At 25mph wind speeds or anticipated gusts, lifts will be grounded.

If at any time, video personnel/staff feels unsafe in lifts, they may make decision to ground the lifts and cease with videotaping games or practices...no questions asked.

2. Guardrails must be installed and access gates or openings must be closed before

raising the platform.

3. Boom and platform load limits specified by the manufacturer shall not be exceeded.
4. Before moving an aerial lift for travel, the boom(s) shall be inspected to see that it is properly cradled and outriggers are in stowed position (if equipped).
5. Consideration shall be given to the protection of bystanders via barricading, having another employee keep bystanders at a safe distance or by other means.
6. Aerial lifts shall not be operated from trucks, scaffolds, or similar equipment.

**Safe Operation During Operation:**

1. Attention shall be given towards the direction of travel, clearances above, below and on all sides.
2. Employees shall not sit or climb on the guardrails of the aerial lift.
3. Planks, ladders or other devices shall not be used on the work platform.
4. An aerial lift shall not be moved when the boom is elevated in a working position with employees in the basket.
5. Aerial lift shall not be placed against another object to steady the elevated platform.
6. Aerial lift shall not be used as a crane or other lifting device.
7. Aerial lift devices shall not be operated on grades, side slopes or ramps that exceed the manufacturer's recommendations.
8. The brakes shall be set and outriggers, when used, shall be positioned on pads or a solid surface.
9. Speed of aerial lift devices shall be limited according to the conditions of the ground surface, congestion, visibility, slope, location of personnel and other factors that may cause hazards to other nearby personnel.
10. Stunt driving and horseplay shall not be permitted.
11. Booms and elevated platform devices shall not be positioned in an attempt to jack the wheels off the ground.
12. The area surrounding the elevated platform shall be cleared of personnel and equipment prior to lowering the elevated platform.
13. All equipment must be secured on the inside of the aerial lift.
14. Operators are to call for assistance if the platform or any part of the machine becomes entangled.

**Safe Work Practices After Operation:**

Safe shutdown shall be achieved by utilizing a suitable parking area, placing the platform in the stowed position, placing controls in neutral, idling engine for gradual cooling, turning off electrical power, and taking the necessary steps to prevent unauthorized use.

Aerial lifts shall be shut off prior to fueling. Fueling must be completed in well ventilated areas free of flames, sparks or other hazards which may cause fires or explosions.

**Changing and Charging Batteries:**

1. Battery charging installations must be located in areas designated for that purpose
2. Facilities must be provided for: flushing and neutralizing spilled electrolyte, fire protection, protection of charging apparatus from damage by trucks, adequate ventilation for dispersal of fumes from gassing batteries.
3. Precautions must be taken to prevent open flames, sparks, or electric arcs in battery charging areas.
4. Employees charging and changing batteries shall be authorized to do the work, trained in the proper handling, and required to wear protective clothing, including face shields, long sleeves, rubber boots, aprons, and gloves.

**Maintenance:**

1. Any aerial lift not in safe operating condition must be removed from service.

Authorized personnel must make all repairs.

2. Repairs to the fuel and ignition systems of aerial lifts that involve fire hazards must be conducted only in locations designated for such repairs.
3. Aerial lifts in need of repairs to the electrical system must have the battery disconnected before such repairs.
4. Only use replacement parts that are currently recommended by the manufacturer.

#### Training Requirements:

Employees who are authorized to operate aerial lifts must receive training prior to engaging in their duties, and at least every three (3) years thereafter. The training is to ensure that the Aerial Lift Safety Program is understood. The supervisor will also ensure that authorized aerial lift operators have acquired the necessary practical skills required for safe operation. Training is offered by Occupational Health and Safety, Rental Company and the department in possession of the lift. The department along with the rental company will perform an operational training with each employee to determine if operators have the knowledge, training, and skills necessary to use the aerial lift. Operational training will consist of a combination of general safety instruction, practical/operational training (demonstrations performed by the trainer, and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace. All operational training must be conducted under close supervision.

#### Initial Training:

1. Receive instruction on the intended purpose and function of each control.
2. Prior to operating any Aerial Lift the trainee will read and understand the manufacturer's operating instruction(s) and aerial lift procedures (Responsibilities), or receive training by a qualified person on the contents of the manufacturer's operating instruction(s) and users safety rules.
3. Be informed of the Aerial Lift operating limitations and restrictions as defined by the manufacturer.
4. Understand by reading or having a qualified person explain all decals, warnings, and instructions displayed on the Aerial Lift.
5. During operational training, trainees may operate a aerial lift only under the direct supervision of authorized trainers, and where such operation does not endanger the trainee or other employees.
6. All training and evaluation must be completed before an operator is permitted to use an aerial lift without continual and close supervision.

## **FORKLIFTS**

Each year about 100 workers are killed and almost 95,000 injured in industrial truck accidents across the country. To properly protect our employees from such accidents, the company has adopted the following Forklift Safety Program.

#### General

The company will ensure that each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of the training and evaluation specified below.

Prior to permitting an employee to operate a powered industrial truck (except for training purposes), the company shall ensure that the employee has successfully completed a training program.

### **Training Program Implementation.**

Trainees may operate a powered industrial truck only:

under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence; and  
where such operation does not endanger the trainee or other employees.

Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.

All operator training and evaluation shall be conducted by persons who have the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence. A qualified instructor with proper certifications in Train the Trainer programs will give training to other employees.

Note: This section does not require that the training be given by any particular individual or organization. The trainer must only be able to demonstrate that they have appropriate knowledge, training and experience to train others and evaluate their competence.

### **Training Program Content.**

Powered industrial truck operators shall receive initial training in the following topics.

Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate;

Differences between the truck and the automobile;

Inspection of forklifts on a daily basis;

Truck controls and instrumentation: where they are located, what they do, and how they work;

Engine or motor operation;

Steering and maneuvering;

Visibility (including restrictions due to loading);

Fork and attachment adaptation, operation, and use limitations;

Vehicle capacity;

Vehicle stability;

Any vehicle inspection and maintenance that the operator will be required to perform;

Refueling and/or charging and recharging of batteries;

Operating limitations;

Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate.

Workplace-related topics:

Surface conditions where the vehicle will be operated;

Composition of loads to be carried and load stability;

Load manipulation, stacking, and unstacking;

Pedestrian traffic in areas where the vehicle will be operated;

Narrow aisles and other restricted places where the vehicle will be operated;

Hazardous locations where the vehicle will be operated;  
Ramps and other sloped surfaces that could affect the vehicle's stability as well as choking of trailers to be loaded;  
Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust;  
Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation;  
The requirements of this section.

### **Refresher Training and Evaluation.**

Refresher training, including an evaluation of the effectiveness of that training, shall be conducted to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely.

Refresher training in relevant topics shall be provided to the operator when:

The operator has been observed to operate the vehicle in an unsafe manner;  
The operator has been involved in an accident or near-miss incident;  
The operator has received an evaluation that reveals that the operator is not operating the truck safely;  
The operator is assigned to drive a different type of truck; or  
A condition in the workplace changes in a manner that could affect safe operation of the truck.

An evaluation of each powered industrial truck operator's performance shall be conducted at least once every three years.

### **Avoidance of Duplicative Training.**

If an operator has previously received training in a topic specified above, and such training is appropriate to the truck and working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate the truck safely.

*Note: This section reduces the training requirement for previously trained operators provided we can demonstrate that the operator knows the material. Since some of the required training is unique to the area where the lift will be operated, we must still cover these areas even if the employee was previously trained.*

### **Certification.**

The company shall certify that each operator has been trained and evaluated as required by this paragraph (I). The certification shall include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation.



## **Hot Work Safety**

The purpose of this program is to establish safe procedures for conducting Hot Work tasks. It includes, but is not limited to: brazing, cutting, grinding, soldering, thawing pipe, torch-applied roofing and welding.

This program applies to all employees and outside contractors who are authorized to conduct Hot Work operations. Including but not limited to welder/cutters.

The Safety Coordinator shall develop a formal written program pertaining to Hot Work; communicate the policy to authorized employees; and assist in interpretation of the program. The Safety and Health Coordinator (or comparable position) will also perform periodic inspections to ensure compliance with the program.

Fire Safety Supervisors may be the maintenance manager / supervisor or other safety designee. Their responsibilities in the area of Hot Work are to ensure that fire safety precautions have been met before authorizing Hot Work, including the designation of a fire watch. This includes work being performed by outside contractors. The Fire Safety Supervisor(s) will also be responsible for reviewing the proper completion of the Hot Work Permit and conducting periodic inspections to ensure compliance.

### ***Authorized Employees***

An authorized employee is defined as the individual that actually conducts the Hot Work procedure. The authorized employee will be responsible for understanding all facets of this program as explained by management. If the authorized employee does not understand any element of this program, work must be delayed until all elements are fully understood. The authorized employee must conduct the work in the authorized time frame listed on the Hot Work Permit. All required precautions must be doublechecked prior to, and during, the actual Hot Work.

### **Safety Tips from the Work Safe People**

## **Fire Watch**

The fire watch is responsible for working along side of the employee who performs the Hot Work. The fire watch maintains a constant vigil during the Hot Work for stray sparks, ignition or other fire hazards. The fire watch must be trained in the use of a fire extinguisher and how to activate the alarm in the event of a fire. The watch should remain in the area for a period of one hour to watch for smoldering fires. A fire watch must be conducted at least 30 Minutes after Hot Work is completed.

## **Outside Contractors**

Outside contractors must have a full understanding of the Main Street Builders, LLC Hot Work Policy and comply with all facets of the program.

## **Procedure**

A. First the Fire Safety Supervisor considers if the Hot Work can be avoided. Once it is determined that Hot Work is necessary, the Fire Safety Supervisor should confirm the permit checklist of precautions have been taken. If any of the things below prevent Hot Work from being done safely, Hot Work is NOT permitted to be done. The following elements are identified on the permit:

- 1.** The location and nature of the Hot Work.
- 2.** Identification of the person or contractor who is performing the work.
- 3.** Insert an expiration date and time (not beyond one work shift).
- 4.** Emergency notification section completed.
  - B. After the permit is completed accurately the Fire Safety Supervisor signs and issues the permit.
  - C. The employee or contractor hangs the permit in a visible place in the work area.
  - D. While the Hot Work proceeds, the fire watch maintains a constant vigil for stray sparks, ignition or other fire hazards, and is ready to provide initial fire response.
  - E. Once the work is complete, the fire watch conducts a careful inspection of the work area and adjacent areas for smoldering fires. The inspection includes floors above and below the work area and adjacent rooms. The fire watch then signs the permit and leaves it posted.
  - F. The Hot Work area should be monitored for an additional three hours. This does not need to involve the fire watch.
  - G. When the monitoring period is ended, the Fire Safety Supervisor or a designee conducts a final inspection of the area and signs the permit. The permit is removed and retained in the maintenance office according to the company's record retention policy.

## **Safety Tips from the Work Safe People**

### *Fire Safety Precautions*

Since a Fire Safety Supervisor authorizes Hot Work only when specific fire safety precautions are taken, these precautions should be built into the permit system. A fire Extinguisher **MUST ALWAYS** be present during any scenario of Hot Work.

- A. 35-ft. rule. The area surrounding the work should be cleared entirely of fire

hazards. ALL combustible materials need to be removed and not present during the work. Approved guards/shields must be used if such material cannot be removed.

B. Floors should be swept clean. Grease and oils should be cleaned up and removed, not simply soaked up with oil dry. Floors of combustible material (e.g. plank on steel, wood block) are covered with fire-resistant or noncombustible material.

C. Flammable liquids like paints, oils, and lacquers are removed from the area, not just sealed.

D. Combustibles that cannot be moved are protected with fire-resistant material or metal shields. This includes storage or machinery with grease or lint deposits.

E. Explosive atmospheres are eliminated or Hot Work is not permitted. Processes that produce explosive atmospheres are halted and the area is monitored for accumulation of combustible gasses continuously before, during, and after Hot Work.

F. All wall and floor openings are covered. Floor openings are plugged with noncombustible caulk. Ductwork and duct openings are sealed with metal covers built for the vent, or covered with fire-resistant material.

G. All doors and fire doors are closed to prevent sparks from escaping.

H. Automatic sprinkler protection must be in service and fully operational.

I. Hot Work equipment is in good repair. Damaged or leaking hoses or hose attachments are of particular concern on torch cutting and welding equipment. Any defective Hot Work Equipment must be removed from service immediately.

#### Disciplinary Action

Any employee not following this procedure, or deviating from it without approval from management, will be subject to disciplinary action as deemed necessary by management.

## **TRENCHING AND SHORING PROCEDURES**

### Purpose

The purpose of this program is to ensure the safety of employees during work in trenches and excavations.

### Scope

If an employee performs work on a site other than your company's site, the facility owner's plan should be used if it exists and is as strict (or more strict) than this plan. In cases where the other facility's plan does not exist or is less strict than this plan, company employees will operate under this plan.

### Definitions

Accepted engineering practice - the standard of practice that is required by a registered professional engineer.

Aluminum Hydraulic Shoring - a manufactured system that consists of aluminum hydraulic cylinders (cross braces) used in conjunction with vertical rails (uprights) or horizontal rails (wales).

Bell-bottom pier hole - a type of footing excavation in which the bottom cross-section is larger than the shaft above, forming a bell shape.

Benching (Benching system) - a method to prevent cave-ins by excavating to form one or more horizontal steps on the sides of an excavation (usually with vertical or near-vertical surfaces between levels).

Cave-in - the unanticipated movement of soil or rock into an excavation, or the movement of soil from under a trench shield or support system in quantities large enough to bury, trap, or injure and immobilize a person.

Cross brace - a horizontal member of a shoring system that is installed from side to side in an excavation. Cross braces contact either uprights or wales.

Excavation - a man-made cavity, trench, cut, or depression in the earth surface that is formed by removing earth.

Faces (sides) - the vertical or inclined earth surfaces that are formed as a result of excavation work.

Failure - the damage or movement of a structural component that compromises its ability to support loads.

Hazardous atmosphere - an atmosphere that is poisonous, explosive, flammable, irritating, toxic, oxygen deficient, corrosive, oxidizing, or otherwise harmful, which may cause illness, injury, or death.

Health Safety Officer - the employee responsible to develop and implement this program, conduct unannounced work site inspections, and ensure that company departments comply with program requirements.

Kickout - the accidental failure or movement of a cross brace.

Protective system - a way to protect employees from cave-ins, material falling or rolling into an excavation, or the collapse of adjacent structures. This includes sloping and benching systems, support systems, shield systems, and other systems that protect the employee.

Ramp - an inclined walking or working surface used to access one point from another. A ramp may be fashioned from earth, or from structural materials such as wood or steel.

Sheeting - the components of a shoring system that keep the earth in position, and are supported by other components of the shoring system.

Shield (Shield system) - a structure that protects employees by withstanding cave-ins. These may be permanent or portable units that move along as work progresses. Shields that are used in trenches are usually termed "trench shields" or "trench boxes".

Shoring (Shoring system) - a structure that supports the sides of an excavation to prevent cave-ins. It is built or put in place.

Sides. See "Faces."

Sloping (Sloping system) - protects employees from cave-ins by sloping the sides of the excavation away from the excavation. The soil type, weather, and surface or nearby surface loads (may affect the soil in the area of the trench - e.g. adjacent buildings, vehicles near the edge of the trench etc.) will affect the required slope.

Stable rock - rock (natural solid mineral material) that can have vertical sides in the excavation (they will remain intact while exposed).

Structural ramp - a ramp that is constructed of wood or steel, and usually is used for vehicle access. Ramps that are constructed out of soil or rock are not considered structural ramps.

Support system means a structure such as underpinning, bracing, or shoring, which provides support to an adjacent structure, underground installation, or the sides of an excavation.

Tabulated data - tables and charts used to design and construct a protective system that are approved by a registered professional engineer.

Trench (Trench excavation) – an excavation below the earth's surface that is narrow (in relation to its length).

Trench box or Trench shield. See "Shield".

Uprights - the vertical components of a trench shoring system that are placed on the earth. They are usually positioned so that uprights do not touch one another. If uprights are in touching or interconnected with each other, or are closely spaced, they are often called "sheeting."

Wales - horizontal components of a shoring system that are placed parallel to the excavation face, and whose sides touch the vertical components (uprights or sheeting) of the shoring system or earth.

#### Key Responsibilities

Management in each region will determine whether this program is required for regulatory compliance. If it is required, management will decide which employees are required to be trained. Management will choose a training facility or use a qualified in-house trainer to conduct the training.

All personnel involved in working in trenches or excavations must be trained. DO NOT initiate trenching.

#### Procedure

Duties of the Safety Manager (Competent Person):

##### Protective Systems or Equipment

1. Monitor water removal operations and equipment.
2. Remove workers if the circumstances warrant it.
3. Atmospheric testing.
4. Inspect excavations that are likely to receive runoff from heavy rains to determine whether diversion ditches, dikes, or other suitable protection are required.
5. Determine if there is a potential for cave-in to assess whether shoring or other protective system is required.
6. Examine damaged material or equipment used for protective systems to determine whether it is suitable for continued use.
7. Classify soil and rock deposits (visually and testing) to determine appropriate protection; if conditions change, re-classify.
8. Determine the appropriate excavation slope to prevent cave-ins due to surplus loads from equipment or stored material, adjacent structures, operating equipment, or traffic, and ensure that the slope is achieved.

##### Inspecting Trench and Protective Systems

- Prior to entry, inspect for evidence of failure of protective systems, a possible cave-in, hazardous atmospheres, or other hazardous conditions, and authorize the immediate removal of employees from the hazardous area.

##### Unsafe Access/Egress

- Design structural ramps to be used solely by employees to enter or exit the excavation. Any structural ramps that are used for equipment must be designed by someone with structural design qualifications.

#### Utilities and Pre-work Site Inspection

Determine the location of underground utilities before excavating and contact utility companies where applicable.

If utility companies or owners are unable to respond within 24 hours to a request to locate underground utility installations, or are unable to establish the exact location of these installations, your company is allowed to proceed but must do so cautiously, and must use detection equipment or another acceptable means to locate utility installations.

Excavations shall be conducted such that they do not endanger underground installations or employees involved in the work. If utilities are left in place, they must be protected by shoring, barricades, suspension or other means to protect employees.

#### Protection of the Public

Prior to beginning excavation operations, barricades, walkways, lighting and posting must be in place for the protection of the public.

Excavations that are adjacent to walkways, driveways and other pedestrian or vehicle thoroughfares must have guardrails, fences, or barricades installed. During the period between sunset and sunrise, warning lights or other lighting must be maintained as required for the safety of the public and employees.

Hazardous excavations (including wells, holes, pits, shafts) must be effectively barricaded, or covered and posted to prevent unauthorized access. These types of temporary excavations must be backfilled as soon as possible.

#### Protection Against Falls

Where employees and the general public are permitted to cross over excavations, walkways or crossings must have standard guardrails or railings installed. If workers in the excavation pass under these walkways or bridges, the walkway or bridge must have a standard guardrail and toe board installed.

#### Protection of Workers in Excavations

##### Access and Means of Egress

Where employees must enter trench excavations over 4 feet deep, a ladder, ramp or stairs must be provided. An employee must not have to travel more than 25 feet laterally; or along the length of the trench before reaching a means of egress. In other words, egress shall not exceed 25ft of lateral travel.

##### Structural Ramps

A competent person must design any structural ramps used solely by employees as a means of entering or exiting the excavation. All structural ramps that are used for equipment entering or exiting the excavation must be designed by a person with structural design qualifications, and must be constructed according to the design.

All ramps and runways that have two or more structural components must have the structural components connected together to prevent displacement or movement.

The structural components of ramps and runways must be of uniform thickness.

Runway structural component connections (cleats or other appropriate means) must be attached to the bottom of the runway or attached such that they do not pose a tripping hazard.

All structural ramps that are used instead of steps must have cleats or other top surface treatment to prevent slipping.

### Ladders

If using portable ladders, the ladder side rails must extend at least 3 feet above the upper surface of the excavation.

If performing work near exposed energized equipment or systems, ladders must have nonconductive side rails.

Where ladders serve two-way traffic, or where ladders serve as the primary means of exiting and 25 or more employees are working in the excavation, you must provide two or more ladders, or a double-cleated ladder.

Prior to use, inspect ladders for signs of damage or defects. Any damaged or defective ladders must be removed from service and marked with "Do Not Use" until they are repaired.

Only use ladders on stable and level surfaces unless the ladder is secured. If placing a ladder in a location where it can be displaced by workplace activities or traffic, you must secure it use barricades to keep these activities away from the ladder.

Ladders that are not self-supporting must be positioned so the foot of the ladder is one foot away from the support for every four feet of height.

Never allow employees on ladders to carry any object or load that could cause them to lose their balance and fall.

### Exposure to Vehicular Traffic

When employees are exposed to vehicular traffic they must be provided with, and must wear vests or other suitable clothing that is marked with or made of reflective or highly-visible material. Flagmen must wear warning vests that are red or orange, and must be made from reflective material if worn during night work. Engineering controls such as barriers are preferable over PPE.

### Employee Exposure to Falling Loads

Employees are never allowed under loads being handled by lifting or digging equipment, or where loads may fall. When a vehicle is being loaded or unloaded, employees must stand away to avoid being struck by any spillage or falling materials. If a vehicle provides adequate protection for the operator, they may remain in the cab of a vehicle being loaded or unloaded.

### Warning System for Mobile Equipment

When mobile equipment is operated ear the edge of an excavation, if the operator does not have a clear and direct view of the edge of the excavation, a warning system must be used. The warning system will include barricades, hand or mechanical signals, or stop logs. If possible, the grading should be sloped away from the excavation.



### Hazardous Atmospheres

In excavations over 4 feet deep, or if a hazardous atmosphere exists or could reasonably be expected to exist, you must test the atmosphere for air contaminants (oxygen, flammable gases, etc.).

Hazardous atmospheres may be expected in excavations: near or containing gas pipelines; in landfills; or in areas where hazardous substances are stored nearby.

Precautions must be taken to prevent exposing employees to atmospheres with less than 19.5 percent oxygen and other hazardous atmospheres. These precautions include proper respiratory protection, or forced ventilation of the workspace.

Where necessary, forced ventilation must be provided to ensure the atmosphere is safe.

If controls are used to reduce the level of atmospheric contaminants to acceptable levels, you must perform continuous air monitoring. The atmospheric monitoring must be equipped with an audible and visual alarm.

You must use a properly calibrated direct reading gas monitor to test the atmosphere. When testing potentially toxic atmospheres, you may use direct reading gas detector tubes or other acceptable means.

### Personal Protective Equipment

Employees working in trenches or excavations must wear approved hard-hats and steel toed boots shoes or.

Employees, who are exposed to flying particles, dust, or other materials resulting from sanding, grinding, drilling, sawing, and other similar operations must wear approved safety glasses with side shields.

Employees who perform, or are exposed to hazards produced by, cutting, welding, or brazing operations must wear approved glasses or a welding face shield or helmet.

Employees who enter deep and confined footing excavations (e.g., bell-bottom pier holes) must wear a harness with a secure lifeline. The lifeline must be distinct from any line used to handle materials, and must be monitored separately all the time that the employee wearing the lifeline is in the excavation.

Employees must wear suitable hand protection (e.g., approved gloves).

Employees who use or work near, masonry saws, hammer drills, jackhammers or similar noisy equipment must wear suitable hearing protection.

When working near the edge of an excavation 6 feet or more deep, employees must be protected from falling. Fall protection may be provided by barricades, guardrail systems, or fences.

Where hazardous atmospheric conditions exist or may develop during work in an excavation, you must have emergency rescue equipment (e.g., a safety harness and line, breathing apparatus, and a basket stretcher) readily available. When it is being used, this equipment must be attended. Only trained, qualified employees who have appropriate equipment should attempt retrieval that requires entry into a hazardous atmosphere.

### Protection from Hazards Associated with Water Accumulation

Do not work in excavations with accumulated water, or that are accumulating water, unless employees

have been protected and precautions taken against the hazards posed by water accumulation. Precautions must include inspection by a competent person prior to beginning work, special shield or support systems to protect from cave-ins, water pumps to control the level of water or safety harnesses and lifelines.

If using water removal equipment to control or prevent water from accumulating, the equipment and operation must be monitored by a competent person who is trained in using the equipment.

Diversion ditches, dikes, or other suitable means must be used to prevent surface water from entering the excavation the work interrupts the natural drainage of surface water (such as streams). You must take precautions to provide adequate drainage of the area next to the excavation.

The competent person must inform employees of the precautions or procedures that must be followed if water accumulates, or is accumulating in an excavation.

#### Stability of Adjacent Structures

A competent person must determine if the stability of adjoining buildings, walls, sidewalks or other structures is affected by the excavation work.

Where excavation operations could affect the stability of adjoining buildings, walls, or other structures, you must use support systems (e.g., shoring, bracing, or underpinning) to ensure structures are stable and employees are protected.

Do not allow excavation below the level of the footing or base of a foundation or retaining wall that could reasonably pose a hazard to employees.

#### Protection of Employees from Falling Objects and Loose Rocks or Soil

Employees must be adequately protected from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. This will include:

1. Removing loose material;
2. Installing protective barricades, such as wire mesh or timber, on the face of the slope (at reasonable intervals) to stop and contain falling material; or
3. Sufficient benching to contain falling material.

Excavation works are not be permitted to work above one another where there is a danger of falling rock or earth.

Employees must be protected from equipment, excavated materials, or other materials are a hazard by falling or rolling into excavations.

You must keep such materials or equipment at least 2 feet from the edge of excavations, or use restraining devices to prevent materials or equipment from falling or rolling into excavations, or use a combination of both if necessary.

If determined by the competent person, materials and equipment may need to be stored more than 2 feet from the edge of the excavation if it poses a hazardous loading condition on the face of the excavation.

All materials that are piled, grouped or stacked near the edge of an excavation must be self-supporting and stable.

Soil is classified into different types (using the following categories). This determines the type of cave-in protection required. A competent and trained person must determine the soil type using these classifications.

1. Grain size is usually classified into four types: gravel, sand, silt, clay (gravel is the least stable, and clay is the most stable).
2. Saturation is how much water the soil is currently holding. Soil that is completely saturated is much less stable than soil that is slightly damp. However, completely dry soil (no water content) is unstable.
3. Cohesiveness determines how well the soil sticks together. The more the soil sticks together, the more stable the trench walls will be. The field test for cohesiveness usually involves rolling soil in your hand into the shape of a worm and noting how and when it separates.
4. Unconfined compressive strength defines the weight per square foot the soil can withstand. This determines how easily the soil will shear and cave in.

#### Soil Types

Soil classifications must be determined by testing. Then, a protective system is designed according to the soil classifications.

- Type A is the most stable type of soil. It is heavy, dense and consists mostly of clay.
- Type B has a medium level of stability. It is made of soils such as silt, sandy loam, and medium clay.
- Type C is the least stable soil. It usually consists of gravel, loamy sand, and soft clay.

To determine timber shoring or aluminum hydraulic shoring, you must refer to the appendixes A & C of 29 CFR 1926 (Excavations).

All devices must be in good repair, and well maintained in order to be used. If a device is damaged it must be inspected.

Employees must be protected from falling, rolling or sliding materials or equipment. Never subject shields to excessive forces. Install shields to protect employees from lateral loads. Restrict employees from being in the shield when it is being installed or removed. Shields must be designed to resist the calculated trench forces.

#### Daily Inspection

On a daily basis, the competent person must inspect excavations, adjacent areas, and protective systems for evidence of a circumstance that could result in a cave-in, failure of the protective system, hazardous atmosphere or other hazardous conditions. The competent person conducts an inspection prior to work starting, and throughout the shift as necessary. They will also inspect after every rainstorm or other occurrence that increases the hazard. This is only required if the trench will be, or is, occupied by employees.

If the competent person finds evidence of a circumstance that could result in a cave-in, failure of protective system, hazardous atmosphere, or other hazardous conditions, all exposed employees must be immediately removed from the area until precautions have been taken to ensure their safety.

All inspections will have a written log. This log will include the date, location of the work site, inspection results, and a summary of any action taken to correct existing hazards.

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## HYDROGEN SULFIDE SAFETY

### Purpose

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The purpose of this program is to establish minimum requirements for site specific H<sub>2</sub>S safety, which will enhance safety in the occupational setting where hydrogen sulfide is present or is recognized as being potentially present.

### Scope

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This program sets forth accepted practices for Hydrogen Sulfide (H<sub>2</sub>S). This program applies to all employees of MAIN STREET BUILDERS, LLC, temporary employees, and any contractors working for MAIN STREET BUILDERS, LLC. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers MAIN STREET BUILDERS, LLC employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

### Definitions

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Contingency Plan - a site-specific written document that provides an organized plan for alerting and protecting the public within an area of exposure following the accidental release of all potentially hazardous atmospheric concentrations of hydrogen sulfide.

Exposure Level - permissible exposure level of hydrogen sulfide is 10 PPM for an 8-hour, time weighted average.

Gas Detector Instrument - An instrument/detector to measure levels of H<sub>2</sub>S. Instruments may be electronically or manually operated.

Hydrogen Sulfide (H<sub>2</sub>S) - is an extremely deadly, toxic gas that in its pure state is colorless and is heavier than air. Additionally:

- It is the second most toxic gas known to man, ranking behind hydrogen cyanide and ahead of carbon monoxide.
- It has the odor of rotten eggs at low concentrations.
- In higher concentrations rapidly paralyze the olfactory nerves (sense of smell).
- Is soluble in water and is flammable and poses a definite threat of explosion.

Parts Per Million (PPM) - parts of vapor or gas per million parts of contaminated air by volume.

Personal H<sub>2</sub>S Monitor - An electronic instrument worn on the person that is set to alarm at 10 PPM of H<sub>2</sub>S.

Possible Locations of H<sub>2</sub>S - While clients are required to notify MAIN STREET BUILDERS, LLC of known H<sub>2</sub>S locations the majority of time H<sub>2</sub>S can be located in drilling operations, recycled drilling mud, water from sour crude wells, blowouts, tank gauging, during routine field maintenance involving hydrocarbons, tank batteries and wells.

Venting - the process of discharging a material to the atmosphere through a series piping and/or venting devices, to facilitate the proper and safe dispersion of toxic materials and to minimize personnel exposure.

## Key Responsibilities

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### Managers and Supervisors

- Shall ensure all employees who are to be assigned to work at locations where hydrogen sulfide is known to be present, or suspected to be present in any concentration, have been trained in hydrogen sulfide safety.
- To ensure employees have been medically approved to wear respirators and trained on the safe use of respirators, including a respirator fit test in accordance with MAIN STREET BUILDERS, LLC Respiratory Protection Program.
- To ensure employees have been trained and familiar with personal H<sub>2</sub>S monitors and gas detection instruments.
- To have been provided with the client's safety procedures.
- To ensure the necessary respiratory equipment to perform the work safely is available.
- That each employee has been provided with a copy of this program.

### Employees

Employees are responsible to comply with this program.

## Procedure

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### Physical Effects of Hydrogen Sulfide

- H<sub>2</sub>S paralyzes the sense of smell. Do Not Rely On Smell To Detect H<sub>2</sub>s – Rely Strictly On Instruments Designed To Measure Concentrations Of H<sub>2</sub>s.
- Hydrogen sulfide is a very dangerous and deadly gas - it is colorless and heavier than air.
- It can accumulate in low places and In small concentrations it has a strong, pungent, somewhat distasteful odor similar to rotten eggs. In higher concentrations, it can deaden the sense of smell (olfactory nerve).
- Exposure to certain concentrations of H<sub>2</sub>S can cause serious injury or death.

### Toxic Effects of Hydrogen Sulfide

CONCENTRATION	PHYSICAL EFFECT
.01 PPM	Can smell odor.
10 PPM	Obvious and unpleasant odor. Beginning eye irritation. ANSI permissible exposure level for 8 hours (enforced by OSHA).
100 PPM	Immediately Dangerous to life or Health (IDLH) Kills smell in 3-15 minutes; may sting eyes and throat. May cause coughing and drowsiness. Possible delayed death within 48 hours.
200 PPM	Kills smell shortly, stings eyes and throat. Respiratory irritation. Death after 1-2 hours exposure.
500 PPM	Dizziness; breathing ceases in a few minutes. Need prompt rescue breathing (CPR). Self-rescue impossible because of loss of muscle control.
700 PPM	Unconscious quickly; death will result if not rescued promptly. 1000 PPM Unconscious at once, followed by death within minutes.

### General

HOUSTON CONTROLS, INC should have a written confined space program per 29 CFR 1910.146 and employees should be trained under CF 1910.146(g) and MAIN STREET BUILDERS, LLC will be aware

of owners contingency plan provisions.

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

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

- Each person entering the H2S location shall don a personal H2S monitor prior to entry.
- A tailgate meeting will be held with everyone on location to discuss the work plan, the responsibilities of each person and the site specific contingency plan.
- Each person shall have either a self contained breathing apparatus (SCBA) or a supplied airline respirator equipped with a 5-minute escape pack, and shall be worn when opening the equipment to the surrounding atmosphere.
- At least one person (per two workers), equipped with a SCBA will act as a stand-by person and may not participate in the work being performed until the atmosphere has been tested and found to have no H2S present in quantities over 10 PPM. The stand-by person shall be stationed up wind, within 100 feet and in clear view of the workers.
- If an operator or other third party provides the stand-by person, it will be the responsibility of the HOUSTON CONTROLS, INC manager/supervisor in charge to verify that the person has been H2S, CPR, and First Aid trained, and that they have been provided the proper respiratory equipment.
  - Only HOUSTON CONTROLS, INC employees may wear MAIN STREET BUILDERS, LLC respirator equipment.
  - If MAIN STREET BUILDERS, LLC employees will use client or other third party equipment, the equipment must be inspected to ensure it is safe to use and meets MSB requirements.

After the equipment has been locked and tagged out (per MSB Lockout/Tagout Program), opened and the H2S concentration has been cleared to less than 10 PPM, the stand-by person will no longer be required. Work may then be performed without respiratory equipment, except for the required 5-minute escape pack.

### **Safe Work Procedures**

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

### **Equipment**

The following equipment shall be provided and used as required by this program:

- Personal H2S monitor set to alarm at permissible exposure limit of 10 PPM for OSHA 1926 requirements and 20 PPM for OSHA 1910 requirements. Fixed monitors may be present as

well at the same alarm setting.

- Portable H<sub>2</sub>S gas testing instrument, either electronic or manual pump operated, capable of testing the suspected concentrations of H<sub>2</sub>S in the system.
- Each testing instrument must be capable of testing the suspected concentrations of H<sub>2</sub>S by using the manufacturer's recommended calibrated tube or other means of measuring the concentration of gas.
- Testing instruments shall be calibrated periodically according to the manufacturer's recommendation, and at least annually.
- Calibration kits with regulator for calibrating the personal monitor.
- Calibration gas cylinder for testing the personal monitor.
- NIOSH-certified self-contained breathing apparatus (air pack) with a minimum of a 30-minute air supply or airline respirator with escape SCBA should be used.
- Full face, air supplied, positive pressure hose line respirator, with 5 minute escape pack attached.
- Respirator wearers requiring corrective eyewear will be fitted with spectacle kits according to the respirator manufacturer, at no expense to the employee.
- Respirators and their components, including all fittings of hoses, shall not be interchanged, which if done, would violate the approval rating of said respirator or related equipment.

### **Medical**

Each employee shall have completed a medical evaluation by a physician or licensed health care professional to determine the employee's ability to wear a respirator as required by the MSB Respiratory Protection Program.

Each employee will successfully complete the medical questionnaire and examination before being allowed to be fit tested with a respirator.

### **Training**

Employees required to work on H<sub>2</sub>S locations will be trained. Training shall consist of:

- Physical and chemical properties of H<sub>2</sub>S
- Sources of H<sub>2</sub>S
- Human physiology
- Signs and symptoms of H<sub>2</sub>S exposure, acute and chronic toxicity
- Symptomatology of H<sub>2</sub>S exposure
- Medical evaluation
- Work procedures
- Personal protective equipment required working around H<sub>2</sub>S
- Use of contingency plans and emergency response
- Burning, flaring, and venting of H<sub>2</sub>S
- State and federal regulatory requirement
- H<sub>2</sub>S release dispersion models
- Rescue techniques, first aid, and post exposure evaluation
- Use, care, and calibration of personal monitors and gas detection instruments
- Respirator inspections and record keeping

Each respirator wearer will complete Respiratory Protection training and a Respirator Fit Test, after being given a medical clearance and before entering any H<sub>2</sub>S location.

Employees and other personnel visiting H<sub>2</sub>S locations who will not be involved in the work shall be briefed on the following prior to entering:

- Site-specific sources of H<sub>2</sub>S
- Health hazards of H<sub>2</sub>S
- Routes of egress
- Emergency assembly areas
- Applicable alarm signals and
- How to respond in the event of an emergency.

### **Rescue**

Each employee, when working alone in a H<sub>2</sub>S designated area, shall plan and become familiar with self-escape procedures to include being aware of wind direction and obstacles to avoid when exiting the work area.

Employees working under the buddy system shall pre-plan an emergency rescue and/or evacuation procedure prior to commencing work, and arrange for periodic communications with his/her supervisor, and document the discussion on each employee's service report.

### **Respirator Inspections**

Respirators will be inspected by the employee before each use and at least monthly.

The inspection will include the respirator face piece, hose, harness, 5minute escape pack cylinder and all other components of the air supply systems used.

Monthly inspections will be documented as per MSB Respiratory Protection Program, and will be kept on file at the local office for review during safety audits.

### **Monitors and Gas Detector Calibration**

Each personal H<sub>2</sub>S monitor shall be calibrated at least monthly and the results recorded on the calibration log.

Those monitors that do not require calibrating shall be bump checked with calibration gas to test alarms, monthly or prior to use if not used routinely.



## **SAFETY PROGRAM EVALUATION**

The Program Administrator will be responsible for ensuring the safety program is reviewed at least once during the first year after implementation and then at least annually thereafter.

The review will be to ensure that the written plan is appropriate for the company at the time of the review and for any anticipated future changes. The Program Administrator or designee will be required to provide written notice that the review was conducted and communicate changes, suggested modifications, and improvements.

## **RECORDKEEPING**

The program administrator will ensure the maintenance of all Safety Program records, for the listed periods, including:

1. New Employee Safety Orientation forms	length of employment
2. Code of Safe Practices Receipt	length of employment
3. Disciplinary actions for safety	1 year
4. Safety inspections	2 years
5. Safety meeting reports	2 years
6. Safety Contact Reports	2 years
7. Accident investigations	5 years
8. Federal or State OSHA log of injuries	5 years
9. Inventory of Hazardous Materials (if any)	forever
10. Employee exposure or medical records	forever

Records are available for review at the main office.



## **APPENDIXES**

HAZARD ASSESSMENT AND CORRECTION RECORD

ACCIDENT / EXPOSURE INVESTIGATION FORM

WORKER TRAINING AND INSTRUCTION RECORD

EMPLOYEE SAFETY CONTACT REPORT

NEW EMPLOYEE SAFETY ORIENTATION

CODE OF SAFE WORK PRACTICES RECEIPT

COMPANY VEHICLE POLICY RECEIPT

SAFETY COMMITTEE MEETING MINUTES

SAFETY MEETING MINUTES

VEHICLE INSPECTION CHECKLIST

FACILITY INSPECTION CHECKLISTS

## ***HAZARD ASSESSMENT AND CORRECTION RECORD***

Date of Inspection: \_\_\_\_\_ Person Conducting Inspection: \_\_\_\_\_

Unsafe Condition or Work Practice:

Corrective Action Taken:

Date of Inspection: \_\_\_\_\_ Person Conducting Inspection: \_\_\_\_\_

Unsafe Condition or Work Practice:

Corrective Action Taken:

Date of Inspection: \_\_\_\_\_ Person Conducting Inspection: \_\_\_\_\_

Unsafe Condition or Work Practice:

Corrective Action Taken:

## ***ACCIDENT / EXPOSURE INVESTIGATION REPORT***

Date & Time of Accident:
Location:
Accident Description:
Workers Involved:
Preventive Action Recommendations:
Corrective Actions Taken:

Manager Responsible:

Date Completed

### **WORKER TRAINING AND INSTRUCTION RECORD**

[illegible]

**EMPLOYEE SAFETY CONTACT REPORT**

Work site: \_\_\_\_\_  
Manager / Supervisor: \_\_\_\_\_  
Employee name \_\_\_\_\_  
Date \_\_\_\_\_  
Job title \_\_\_\_\_

Safety concern:

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Corrective action:

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Signed: \_\_\_\_\_  
Employee

Signed: \_\_\_\_\_  
Manager / Supervisor



### **NEW EMPLOYEE SAFETY ORIENTATION**

The Supervisor will verbally cover the following items with each new employee on the first day of their employment.

Employee Name: \_\_\_\_\_  
Start Date: \_\_\_\_\_  
Job Title / Position: \_\_\_\_\_

Instruction has been received in the following areas.

- ☐ 1. Code of Safe Practices.\*
- ☐ 2. Hazard Communication (chemicals) Employee Training Handbook.\*
- ☐ 3. Driving Safety Rules.\*
- ☐ 4. Safety rule enforcement procedures.
- ☐ 5. Necessity of reporting ALL injuries, no matter how minor, IMMEDIATELY.
- ☐ 6. Proper method of reporting safety hazards.
- ☐ 7. Emergency procedures and First Aid.
- ☐ 8. Proper work clothing & required personal protective equipment.
- ☐ 9. List all special equipment, such as lifts, employee is trained and authorized to use.
- ☐ 10. Emergency Exits and Fire Extinguishers.

\_\_\_\_\_  
\_\_\_\_\_

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\* Give a copy of these items to the employee.

I agree to abide by all company safety policies and the Code of Safe Practices. I also understand that failure to do so may result in disciplinary action and possible termination.

Signed \_\_\_\_\_ Date \_\_\_\_\_  
Employee

Signed \_\_\_\_\_ Date \_\_\_\_\_  
Supervisor Supervisor

## **CODE OF SAFE PRACTICES RECEIPT**

This is to certify that I have received a copy of the Code of Safe Practices. I have read these instructions, understand them, and will comply with them while working for the company.

I understand that failure to abide by these rules may result in disciplinary action and possible termination of my employment with the company.

I also understand that I am to report any injury to my Supervisor or Manager immediately and report all safety hazards.

I further understand that I have the following rights.

- I am not required to work in any area I feel is not safe.
- I am entitled to information on any hazardous material or chemical I am exposed to while working.
- I am entitled to see a copy of the Safety Manual and Injury and Illness Prevention Program.
- I will not be discriminated against for reporting safety concerns.

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Print Name

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Sign Name

Date

Copy: Employee  
File

Driving Safety Rules  
**COMPANY VEHICLE POLICY RECEIPT**

This is to certify that I have received a copy of the Driving Safety Rules and Company Vehicle Policy. I have read these instructions, understand them, and will comply with them while driving company vehicles.

I understand that failure to abide by these rules will result in disciplinary action and possible suspension of my driving privileges.

I also understand that I am to report any accident to the office immediately.

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Print Name

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Sign Name

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Date

Copy: Employee File

## SAFETY COMMITTEE MEETING MINUTES

Date of Committee

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

Minutes prepared by: \_\_\_\_\_ Date: \_\_\_\_\_

Review of Safety Inspection and Plan of Correction:

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Previous Business:

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New Business: \_\_\_\_\_

Review of Accidents:

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Plan of Correction:

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Employee Suggestions:

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Recommended Safety Training:

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Additional Comments:

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Safety Committee Meeting Attendance:

- |           |           |
|-----------|-----------|
| 1. _____  | 2. _____  |
| 3. _____  | 4. _____  |
| 5. _____  | 6. _____  |
| 7. _____  | 8. _____  |
| 9. _____  | 10. _____ |
| 11. _____ | 12. _____ |
| 13. _____ | 14. _____ |
| 15. _____ | 16. _____ |
| 17. _____ | 18. _____ |
| 19. _____ | 20. _____ |

## SAFETY MEETING MINUTES

Company: \_\_\_\_\_ Department: \_\_\_\_\_

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

Safety Topic Discussed:

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Additional items addressed other than topic:

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Suggestions and Comments:

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Safety Meeting Attendance:

- |           |           |
|-----------|-----------|
| 1. _____  | 2. _____  |
| 3. _____  | 4. _____  |
| 5. _____  | 6. _____  |
| 7. _____  | 8. _____  |
| 9. _____  | 10. _____ |
| 11. _____ | 12. _____ |
| 13. _____ | 14. _____ |
| 15. _____ | 16. _____ |

## Vehicle Inspection Checklist

Driver:

Date:

Vehicle \_\_\_\_\_  
Mileage \_\_\_\_\_

The items on this inspection sheet should be checked daily. A separate sheet should be filled out for each vehicle driven. Example: If you drive vehicle #3614 and swap to #7659 during the day, 2 inspection sheets should be filled out for that day. These forms are due daily. Place an X by any item that needs attention. Place a check mark by the rest. Any discrepancies should be detailed on the bottom of this sheet.

- \_\_\_\_\_ Ignition Key
- \_\_\_\_\_ Fuel Key
- \_\_\_\_\_ Check Radio (Two way check)
- \_\_\_\_\_ Visual Inspection for Exterior Damage/Leaks under vehicle
- \_\_\_\_\_ Check inside Engine compartment for Leaks/loose items
- \_\_\_\_\_ Oil Level
- \_\_\_\_\_ Washer Fluid Level
- \_\_\_\_\_ Coolant Level
- \_\_\_\_\_ Power Steering Fluid Level
- \_\_\_\_\_ Start Engine and check Transmission Fluid Level (Fluid should be hot)
- \_\_\_\_\_ Check for Air Gauge
- \_\_\_\_\_ Check Tires for wear and pressure **(70 PSI COLD)**
- LF \_\_\_\_\_ LR \_\_\_\_\_ RF \_\_\_\_\_ RR \_\_\_\_\_
- \_\_\_\_\_ Check Horn
- \_\_\_\_\_ Check Heater/Defroster
- \_\_\_\_\_ Check Windshield Wipers/Washers
- \_\_\_\_\_ Check Highlight/Signal lights/4way flashes/Tail lights/Backup lights/Horn
- \_\_\_\_\_ Check Lift, run one Complete Cycle
- \_\_\_\_\_ Check Interior lights
- \_\_\_\_\_ Check Mirrors for damage and adjustments
- \_\_\_\_\_ Check fuel level **(Should Not be Less Than ½ Tank)**
- \_\_\_\_\_ Check First Aide Kit on Board and full
- \_\_\_\_\_ Check Fire Extinguisher on board/Gauge showing charged, proper seal & pin
- \_\_\_\_\_ Check Adequate tie-downs/Tie-down Tracks (must be clean)
- \_\_\_\_\_ Check BIOHAZ KIT (Seal)
- \_\_\_\_\_ As you drive, continually check for any strange smells, sounds, vibrations, or anything that does not feel right.

\*Form to be completed and turned in to Operations Manager DAILY.

The following discrepancies were noted:

Driver's Signature:

Corrective action taken:

\_\_\_\_\_

## FACILITY INSPECTION CHECKLIST

Department/Division: \_\_\_\_\_

Date Of Inspection: \_\_\_\_\_

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

Inspector: \_\_\_\_\_

Criteria	Check One Yes No		Comments
• Are work areas properly illuminated?	<input type="checkbox"/>	<input type="checkbox"/>	
• Is the ventilation system appropriated for the work performed?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are restrooms and washrooms kept clean and sanitary?	<input type="checkbox"/>	<input type="checkbox"/>	
• Is potable water provided for drinking and washing?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are outlets for water not suitable for drinking clearly identified?	<input type="checkbox"/>	<input type="checkbox"/>	
• Where heat stress is a problem, do all fixed work areas have air conditioning?	<input type="checkbox"/>	<input type="checkbox"/>	
• Is the work area clean and orderly?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are floors kept clean and dry or have you taken appropriate measures to make floors slip resistant?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are floors free from protruding nails, splinters, holes, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are permanent aisles and passageways clearly marked?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are aisles and passageways kept clear?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are pits and floor openings covered or guarded?	<input type="checkbox"/>	<input type="checkbox"/>	
• Is combustible trash removed from the worksite daily?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are spilled materials or liquids cleaned up immediately?	<input type="checkbox"/>	<input type="checkbox"/>	
• Is there safe clearance in aisles where motorized or mechanical handling equipment travel?	<input type="checkbox"/>	<input type="checkbox"/>	
<b>FLOOR AND WALL OPENINGS, STAIRS AND STAIRWAYS</b>			
• Are floor openings guarded by covers or guardrails on all sides?	<input type="checkbox"/>	<input type="checkbox"/>	
• Do skylights have screens or fixed railings that would prevent someone on the roof from falling through?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are open pits and trap doors guarded?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are grates or similar type covers over floor openings such as floor drains, designed so that foot traffic or rolling equipment are not affected by grate spacing?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are open-sided floors, platforms and runways having a drop of more than 4 feet guarded by a standard	<input type="checkbox"/>	<input type="checkbox"/>	

railing or toe board?			
• Are standard stair rails or handrails on all stairways having four or more risers?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are all stairways at least 22 inches wide?	<input type="checkbox"/>	<input type="checkbox"/>	
• Do stairs have at least a 6-½ foot overhead clearance?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are step risers on stairs uniform from top to bottom?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are steps on stairs and stairways designed or provided with a slip-resistant surface?	<input type="checkbox"/>	<input type="checkbox"/>	
• Are stairway handrails located between 30 and 34 inches above the leading edge of stair treads?	<input type="checkbox"/>	<input type="checkbox"/>	

#### GENERAL WORK ENVIRONMENT

Criteria	Check One Yes No		Comments
<ul style="list-style-type: none"> <li>Are stairway handrails capable of withstanding a load of 200 pounds, applied in any direction?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>ELEVATED SURFACES</b>			
<ul style="list-style-type: none"> <li>Is the vertical distance between stairway landings limited to 12 feet or less?</li> <li>Are stairways adequately illuminated?</li> <li>Are signs posted showing the elevated surface load capacity?</li> <li>Do elevated work areas have a permanent means of access and egress?</li> <li>Are materials on elevated surfaces piled, stacked or racked in a manner to prevent tipping, falling, collapsing, rolling or spreading?</li> </ul>	<input type="checkbox"/>     	<input type="checkbox"/>     	
<b>EXITS AND EXIT DOORS</b>			
<ul style="list-style-type: none"> <li>Are all exits marked with an exit sign and illuminated by a reliable light source?</li> <li>Are exit routes clearly marked?</li> <li>Are doors, passageways or stairways that are neither exits nor access to exits, appropriately marked "NOT AN EXIT" or "STOREROOM" etc.?</li> <li>Are all exits kept free of obstructions?</li> <li>Are there sufficient exits to permit prompt escape in case of emergency?</li> <li>Do exit doors open in the direction of exit travel?</li> <li>Are doors that swing in both directions provided with viewing panels in each door?</li> <li>Are exits and exit routes equipped with emergency lighting?</li> </ul>	<input type="checkbox"/>             	<input type="checkbox"/>             	



ADDITIONAL REMARKS:			
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Additional information regarding this safety program manual can be obtained through the safety program administrator or safety committee.