

Marion County Board of County Commissioners Safety and Health Best Practice Guidelines

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http://www.marioncountyfl.org/SafetyTraining/Safety_Training.aspx

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Marion County Safety and Health Best Practice Guidelines

Responsibilities

Senior Managers / Managers

- Ensure safety is adequately budgeted for the department, job, etc.
- Communicate safe work practices regularly within the department.
- Attend departmental and county-wide safety meetings.
- Formally recognize outstanding safety performance by any/all personnel.
- Assist the Supervisor or any other personnel with the safety process as needed or as requested. This can include formal worksite periodic inspections.
- Uphold and enforce all known safe work practices.

Supervisors / Foreman's

- Ensure new-hire orientation is given to new employees, or is followed up at the work level
- Ensure employees are given training that includes safe work practices on equipment, tools, machines, processes, etc.
- Personally conduct--or designate a qualified personnel to conduct-- regular inspections of the workplace
- Conduct frequent (daily) work discussions prior to the start of work that include safe work practices
- Uphold and enforce safe work practices. This includes influencing safe behavior by positive reinforcement such as recognition of worker's safe work performance, and/or monetary or gift awards for safe behavior. Enforcement action can also influence safe behavior when applied towards workers who blatantly perform unsafe acts, or who continually perform in an unsafe manner
- Investigate all incidents and take immediate corrective action to prevent re-occurrence
- Provide safety meetings on a regular basis and require attendance of all workers

All Employees

- Are to follow safe work practices, and if they are unsure of what is the correct/safe way to perform a task or a job, they are to ask their foreman, supervisor or manager
- Read manufacture safety and operator instructions.
- Should immediately report all unsafe equipment or tools to their foreman, supervisor or manager. This includes reporting unsafe behavior of other workers, if these workers are approached and remain unwilling to correct their unsafe actions or conditions.
- Are to uphold the safe work practices this county has established
- If injured on the job, or become ill, immediately inform their supervisor, foreman or manager

WORKSITE ANALYSIS

- All work areas, departments, and jobs need to be inspected on a regular basis to ensure safe work practices and safe and healthy conditions. For the most part, these inspections are to be conducted by the Supervisor/Superintendent or his/her qualified and designated

worker. Each inspection may not be required to be formal (written) although regular written completed inspections should be expected.

- This includes the purchase of new equipment or tools, or the re-working or retrofitting of workstations or equipment so as to ensure that safety and health is considered.
- This can include the assessment of a workstation or process that may need to be fitted to the worker (ergonomics) so as to avoid injury or illness.
- If approached by workers who appear to have a true concern regarding a safety or health issue, supervisors or managers need to act accordingly and give attention to the matter.
- All incidents (this includes property damage, equipment damage, incidents involving injury or illnesses, and near-miss type incidents) need to be investigated. In most cases, the department, job foreman or supervisor should complete this investigation. Managers should be involved as necessary or when requested.
- Incidents that involve injury and illnesses should be evaluated and analyzed for trends, common causes, and patterns so as to prevent further incidents.

HAZARD PREVENTION AND CONTROL

- If feasible, engineering controls should be used first, rather than immediately providing personal protection equipment (PPE).
- Safe work practices should be developed and employees should be trained on using these safe work practices to avoid injury and illnesses. This may include the implementation of task or job hazard analyses.
- PPE should be provided as necessary, and its use enforced by Supervisory and Management staff.
- If feasible, administrative controls, such as reducing the duration of exposure can be implemented.
- Equipment, tools, machines, trucks, vehicles, and structures/facilities etc., need to be maintained in good working order by a continued preventative maintenance process.
- All workers should be made aware of workplace emergency best practice guidelines. Training on this process should begin at orientation. Drills should be conducted periodically to assist in making all workers aware of the best practice guidelines in the event of an emergency such as fire or explosion.

SAFETY AND HEALTH TRAINING

Safety and Health Orientation

Workplace safety and health orientation begins on the first day of initial employment or job transfer. Each employee should have access to a copy of the written safety program, through his or her supervisor, for review and future reference, and should be given a personal copy of any safe work practices, policies, and best practice guidelines pertaining to his / her job. Supervisors should question employees and should answer employees' questions to ensure knowledge and understanding of safe work practices, policies, and job-specific best practice guidelines. Supervisors are responsible to inform all employees that compliance with the safe work practices is required.

Job-Specific Training

- Managers, Supervisors and Foremen should receive basic safety and health training as it relates to their positions
- Supervisors should initially train employees on how to perform assigned job tasks safely.

- Supervisors should carefully review with each employee any specific safe work practices, policies, and best practice guidelines that are applicable.
- Supervisors should observe employees performing the work. If necessary, the supervisor should provide a demonstration using safe work practices, or remedial instruction to correct training deficiencies before an employee is permitted to do the work without supervision.
- All employees should receive safe operating instructions on seldom-used or new equipment before using the equipment.
- Supervisors should review safe work practices with employees before permitting the performance of new, non-routine, or specialized best practice guidelines.

Periodic Retraining of Employees

All employees should be retrained periodically on safe work practices, policies and best practice guidelines, and when changes are made to the written safety program.

If necessary, individual employees should be retrained after the occurrence of a work-related injury caused by an unsafe act or work practice, or when a supervisor observes employees displaying unsafe acts, practices, or behaviors.

FIRST AID AND MEDICAL ASSISTANCE

There should be adequate first aid supplies and /or an adequate first aid kit available at each workplace. Where required, or in the case of an emergency where the workplace is located in a remote location and emergency medical assistance can not arrive within a few minutes, there should be a designated certified first aid (and possibly CPR) trained employee who can assist in first aid emergency cases. Employees who receive work related injuries or illnesses should be given immediate attention in regards to the nature of their injury or illness.

INCIDENT INVESTIGATION

Incident Investigation Best Practice Guidelines

The supervisor at the location where the incident occurred should perform an incident investigation. Incidents can include property damage, near misses and workplace injuries and illnesses. These investigations are to assess the nature and the cause of the incident, not to place blame on personnel. Supervisors need to investigate incidents using best practice guidelines that include:

- Implement temporary control measures to prevent any further injuries to employees or damage to equipment or property or the public.
- Review the equipment, operations, and processes to gain an understanding of the accident situation.
- Identify and interview each witness and any other person who might provide clues to the causes.
- Investigate causal conditions and unsafe acts; make conclusions based on existing facts.
- Complete the incident investigation report.
- Provide recommendations for corrective actions.
- Indicate the need for additional or remedial safety training, if needed.

Incident investigation reports should be submitted to the designated management personnel as soon as possible after the incident.

Incident Report Form

The incident report form should be a simple format for the supervisor to complete in a timely manner (i.e. 1001 Accident / Incident Report by Supervisor). It can be similar to the OSHA 301 "Injury and Illness Incident Report" form. To correctly assess the nature and causes of the incident, the form should contain questions such as

- What was the employee doing just prior to the incident
- Were there any witnesses? What were their names? Did the witnesses provide statements of the incident?
- What happened? ("Ladder kicked out and employee fell to floor", "forklift struck wall, wall collapsed.")
- What part of the body was affected by the incident? (eye, arm, leg, fingers, hand, etc.) And what was the nature of the injury? (object in eyes, fractured arm, sprained leg, lacerated finger, cut in right hand, etc.).
- What was the object or substance that directly harmed the employee (if substance/object is known)?
- Was the injury fatal?

RECORD KEEPING BEST PRACTICE GUIDELINES

The county should control and maintain all employee accident and injury records. Records are maintained for a minimum of five (5) years following the end of the year to which they relate. The data on the Injury and Illness log and posting of the Summary of Work-related injuries and illnesses should be in accordance with government regulations. The following should be included in the record keeping process:

- Log of Work-related Injuries and Illnesses (OSHA form 300)
- Summary of Work-related Injuries and Illnesses (OSHA form 300A)
- Incident investigation reports (OSHA form 301 or similar)
- Workers' Compensation Notice of Injury

Safety Best Practice Guidelines for SIC # 0781 Landscape, Counseling, Planning

LANDSCAPE ARCHITECTS/DESIGNERS

General Rules

1. Straighten or remove rugs and mats that do not lie flat on the floor.
2. Do not use extension or power cords that have the ground prong removed or broken off.
3. Use a cord cover or tape the cord down when running electrical or other cords across aisles, between desks or across entrances and exits.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Use the handle when closing doors, drawers and files.
7. Close drawers and doors immediately after use.
8. Store sharp objects, such as pens, pencils, letter openers, compass or scissors in drawers or with the points down in a container.
9. Use a staple remover, not your fingers, to remove staples.

Video Display Terminal Ergonomics

1. Stand up and stretch every hour.
2. Adjust the height of your chair so when you are sitting, your elbow and keyboard height is the same.
3. If the chair height is too high, use a book or other object as a foot rest.
4. For additional lower back support, place a pillow or bundled clothing in the chair at the small of your back.

LANDSCAPE INSTALLERS – TREE INSTALLATION, SHRUB INSTALLATION, SOD INSTALLATION

General Rules

1. Do not approach heavy equipment until the operator has seen you and signaled that it is safe to approach.
2. Keep your shirt on when working.
3. Drink plenty of clear liquids during your breaks.
4. Do not work outdoors during lightning storms.
5. Use a long-distance insecticide to destroy wasp nests.
6. Do not operate powered equipment on which you have not been trained.
7. Do not use any tool or equipment that has a loose or broken handle.
8. Call the “Call Sunshine” one-call center at (800) 432-4770, and all “Call Sunshine” non-members to have underground facilities marked 48 hours before digging.
9. Do not dig where the underground lines have been marked.

Ladder Usage

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 other visible damage.
3. Keep ladder rungs clean and free of dirt or mud.
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Secure the ladder in place by having another employee hold it.
8. Do not stand on the top two rungs of any ladder.
9. Do not stand on a ladder that wobbles, or that leans to the left or right.
10. Do not carry items in your hands while climbing up or down a ladder.
11. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.

Backpack Blowers

1. Read and follow the manufacturer's routine and preventive maintenance schedule posted on the storage closet wall.
2. Only use grip locations as specified by the manufacturer as a handhold when operating the blower.
3. Before refueling, remove the blower from your harness, place the blower on the ground and allow the engine to cool.
4. Do not pour fuel into the tank of a running engine.
5. Allow the engine to cool before performing maintenance or refueling.
6. Do not smoke while servicing, using or refueling the blower.
7. Do not use the blower to clean yourself.
8. Do not direct the blower toward bystanders.

Fuel Storage and Refueling

1. Do not pour fuel into the tank of a running engine.
2. Do not smoke while servicing, using or refueling a gasoline-powered tool.
3. Do not run a gasoline engine inside the storage shed.
4. Allow the engine to cool before performing maintenance or refueling.
5. Wash your hands with soap and water if you spill gasoline on your hands.

TREE INSTALLATION

Boom Truck Safety

1. Set the truck parking brake before starting the crane.
2. Set the truck on as firm and level ground as possible.
3. Only one person is allowed to operate the boom truck. Stop operations once someone enters the loader's operating radius.
4. Do not let anyone get under the boom or the load.
5. When loading is complete, place the boom in the cradle or place it on the ground and shut off the crane before exiting.
6. Do not leave the boom raised when it is not in operation.

Skid Steer Loaders

1. Wear seat belts when provided on skid steer loaders with roll over protection.

2. Carry the load low for stability.
3. Back up on slopes. Do not drive forward up slopes.
4. No passengers are permitted on skid steer loaders.
5. Do not travel or turn with the lift arms up.
6. Do not leave the skid steer loader unattended while the engine is running or while the lift arms are up.
7. Do not modify equipment or add attachments not approved by the manufacturer.

Front End Loaders

1. Do not use a bucket or attachment for a working platform or personnel carrier.
2. Operate the loader from the seat. Do not operate the loader from outside the cab.
3. No passengers are permitted on front-end loaders.

AUGERS

General Rules

1. Do not wear loose clothing or jewelry while operating the auger. Wear earplugs, long pants, gloves, and sturdy boots with non-slip soles.
2. Clear all personnel from the digging area before starting the auger.
3. Replace the guards before starting the auger and after making adjustments or repairs.
4. Do not remove, alter or bypass any safety guards or devices when operating the auger.
5. Do not make any adjustments or repairs to the auger while it is in operation.
6. Do not poke anything near the rotating auger.

Tractor P.T.O. Driven Augers

1. Only the operator is allowed on the tractor when the auger is in operation.
2. Apply the tractor brakes firmly and put the tractor in park before starting to dig a hole.
3. Shut off the tractor, engage the parking brake, and wait until the drivelines have stopped rotating before clearing obstructions, grass, build-up or dirt from the auger.
4. Disengage the power take-off and auxiliary hydraulics and shift the tractor into neutral or park before attempting to start the tractor.
5. Do not operate the auger if anyone is within 10 feet of the auger.
6. Lower the auger to the ground before leaving the tractor.
7. Do not leave the auger unattended with the tractor running.
8. Keep the tractor platform free of dirt, trash, grease and oil.
9. Operate the auger only while seated in the tractor and never from the ground unless the auger is equipped with remote hydraulic controls.
10. Do not use the auger on quick, couple-type, three-point hitches.
11. Do not crawl under the auger for any reason.
12. Transport the tractor/auger slowly over rough terrain.
13. Do not allow anyone on the auger while the tractor is in motion.
14. Before disconnecting lines to the auger's hydraulic cylinders, relieve all hydraulic pressure by:
 - a. Shutting off the tractor.
 - b. Moving the auger control lever up and down a several times to relieve the residual hydraulic pressure.
 - c. Using a piece of cardboard or wood to check for hydraulic fluid leaks. Do not use your bare hands.

Hand-Powered Augers

1. Operate a two-person auger with two people.
2. Do not operate a one-person auger with more than one person.
3. Do not use the auger as an anchoring device.
4. Do not over-speed the engine by altering the governor setting or by disconnecting the engine governor.
5. Stop the engine and disconnect the spark-plug wire before cleaning, inspecting, adjusting or repairing the auger.

Pruning and Cutting

1. Wear leather gloves when handling tree branches.
2. Do not use cutting shears, utility knives or wire cutters with broken or loose handles.
3. Cut in the direction away from your body when using cutting shears, utility knives, wire cutters or other cutting tools.
4. Use the locking clip on the cutting shears after use.
5. Do not attempt to catch a falling tool.
6. Do not pick up cutting tools by their blades.
7. When handling cutting shears or other cutting tools, direct sharp points and edges away from you.
8. Do not perform “make-shift” repairs to tools.
9. Keep the blade of all cutting tools sharp.
10. Do not throw tools from one location to another, from one employee to another, or from ladders.
11. Follow this procedure before picking up any bags that have sharp wire or tree branches protruding from them: With two hands, grab the top of the bag above the tie-off and hold the bag away from your body.

Staking

1. Wear gloves and safety glasses when snipping the tree support wire.

Shovels

2. Wear leather gloves and steel-toed shoes when using the shovel.
3. Do not jump up and down on the step of the shovel.
4. When handing a shovel to your co-worker, hand it to him/her handle first.
5. When pitching dirt, pitch it to your side. Do not pitch it over your head or shoulder.
6. Make sure there is no one to the side you are pitching dirt.
7. If the ground does not give in while shoveling, use alternate equipment such as an auger.
8. Do not lay the shovel on the ground with the spade facing upward.

Tree Spades

1. Wear hard hats, hearing protection and safety goggles while operating the tree spade.
2. Keep the tree spade’s operating radius at least 10 feet away from energized power lines.
3. Clear all personnel from the tree spade before beginning operation.
4. Operate the tree spade only while positioned at the loader control.
5. Keep body parts and clothing away from the power driven parts.
6. When digging on a slope, face the loader up or down the slope. Do not dig with the loader facing across the slope.
7. Only the operator is permitted to operate the tree spade.

8. Before disconnecting or loosening any part of the spade's drive system, lower the spade to the ground.
9. Use a piece of cardboard or wood to check for hydraulic fluid leaks. Do not use your bare hands.
10. Do not work under a raised tree spade.
11. Replace the guards before starting the tree spade and after making adjustments or repairs.
12. Do not remove, alter or bypass any safety guards or devices when operating the tree spade.
13. Apply the parking brakes firmly and put the tractor or truck in park before starting to dig a hole.

SHRUB INSTALLATION

Shovels

1. Wear leather gloves and steel-toed shoes when using the shovel.
2. Do not jump up and down on the step of the shovel.
3. When handing a shovel to your co-worker, hand it to him/her handle first.
4. When pitching dirt, pitch it to your side. Do not pitch it over your head or shoulder.
5. Make sure there is no one to the side you are pitching dirt.
6. If the ground does not give in while shoveling, use alternate equipment such as an auger.

Post Hole Diggers

1. Wear leather gloves and steel-toed shoes when using the post-hole digger.
2. When handing a post-hole digger to your co-worker, hand it to him/her handle first.
3. Use two hands to control a post-hole digger.

Pruning and Cutting

1. Wear leather gloves when handling tree branches.
2. Do not use cutting shears, utility knives or wire cutters with broken or loose handles.
3. Cut in the direction away from your body when using cutting shears, utility knives, wire cutters or other cutting tools.
4. Use the locking clip on the cutting shears after use.
5. Do not attempt to catch a falling tool.
6. Do not pick up cutting tools by their blades.
7. When handling cutting shears or other cutting tools, direct sharp points and edges away from you.
8. Do not perform "make-shift" repairs to tools.
9. Keep the blade of all cutting tools sharp.
10. Do not throw tools from one location to another, from one employee to another, or from ladders.
11. Follow this procedure before picking up any bags that have sharp wire or tree branches protruding from them: With two hands, grab the top of the bag above the tie-off and hold the bag away from your body.

Machete

1. Wear steel-toed shoes when using a machete.
2. Do not use a dull machete.
3. When carrying a machete, grasp the handle and not the blade.
4. When handing a machete to your co-worker, hand it to him/her handle first.

Wheelbarrow

1. Wear leather gloves when using a wheelbarrow.
2. Do not use a wheelbarrow with a wobbly or loose wheel.
3. Do not stand on a wheelbarrow or use it as a work platform.
4. Do not transport anyone in a wheelbarrow.
5. Do not push wheelbarrow with handles in an upright position.

SOD INSTALLATION

Sod Cutters

1. Stop the engine and disconnect the spark-plug wire before cleaning, inspecting, adjusting or repairing cutting blades or other rotating parts.
2. Keep body parts and clothing away from the running engine and the cutting blade.
3. Do not alter or bypass any safety device provided by the manufacturer.
4. Shift the gear of the sod cutter into neutral before starting or shutting it off.
5. Do not allow anyone to stand in front of the sod cutter when it is in operation.
6. When cutting along roads, stay as close to the curb as possible.
7. Allow the sod cutter to cool before covering or storing it in the storage shed.

Forklifts

Pre-Use Inspection

Do not use the 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.

Forklift General Rules

1. Follow the manufacturer best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
2. Do not use broken pallets.

Starting the Forklift

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

Forklift Driving Rules

1. Do not exceed a safe working speed of 5 miles per hour, and slow down when approaching worker areas.
2. Do not raise or lower a load while you are en route.
3. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.
4. Drive at a walking pace and apply brakes slowly to stop when driving on unstable or wet ground.

5. Steer wide when making turns.
6. Drive in reverse and use a signal person when the load blocks vision.
7. Look in the direction you are driving; proceed when you have a clear path.
8. Drive loaded forklifts in reverse when driving down a slope.
9. Drive unloaded forklifts in reverse when going up a slope, and forward when going down a slope.
10. Do not use “Reverse” to brake.

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 1 foot, then slowly and evenly tilt the mast backward to stabilize the load.

Stacking One Load on Top of Another

1. Stop about 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

Shutting Off the Forklift

1. Lower the mast completely, turn off the engine and set the parking brake before leaving your forklift.

Machete

1. Wear steel-toed shoes when using a machete.
2. Do not use a dull machete.
3. When carrying a machete, grasp the handle and not the blade.
4. When handing a machete to your co-worker, hand it to him/her handle first.

Steel Rakes

1. Wear leather gloves and steel-toed shoes when using a steel rake.
2. Do not lay steel rakes on the ground with the prongs facing upward.
3. When handing a steel rake to your coworker, hand it to him/her handle first.

DRIVERS

Driving Safety

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.

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 your hands.

Vehicle/Trailer Safety

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

Safety Best Practice Guidelines for SIC #0782 Lawn And Garden Services

LAWN MAINTENANCE PERSONNEL

General Rules

1. When working outdoors during the day, wear sun block, a long sleeve shirt, a hat and long pants.
2. Stop lawn maintenance operations during an electrical storm and when lightning is visible or thunder is heard.
3. Use work gloves when handling tree stumps and branches.
4. Remove your gloves and wash your hands with soap and water after handling tree stumps and branches.

Lifting Best practice guidelines

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 a wheelbarrow 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 branches or clippings with thorns 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 should 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. 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.

Ladder Usage

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 other visible damage.
3. Keep ladder rungs clean and free of dirt or mud.
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.

6. 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.
7. Secure the ladder in place by having another employee hold it.
8. Do not stand on the top two rungs of any ladder.
9. Do not stand on a ladder that wobbles, or that leans to the left or right.
10. Do not carry items in your hands while climbing up or down a ladder.
11. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.

Gasoline-powered Lawn Maintenance Tools

1. Wear safety glasses, a dust mask and closed-toe shoes when operating any mower, edger, chain saw, line trimmer, or any other gasoline powered lawn maintenance tool.
2. Do not use a chain saw, lawn mower, or any other gasoline-powered lawn tool if you are taking medication from a container labeled “May cause drowsiness.”
3. Read and follow the manufacturer’s routine and preventive maintenance schedule posted on the workshop wall.
4. Do not use tools with parts that are loose, worn, cracked or otherwise visibly damaged.
5. Tag damaged tools “Out of Service” to prevent accidental start up or use.
6. Do not alter or bypass any safety device provided by the manufacturer.
7. Use only the grip locations, as specified by the manufacturer, as handholds when operating the unit.
8. Do not pour fuel into the tank of a running engine.
9. Do not smoke while servicing, using or refueling a gasoline-powered tool.
10. Keep body parts and clothing away from the running engine and the cutting blade.
11. Do not run a gasoline engine inside the storage shed.
12. Turn off the engine when you are not cutting or trimming.
13. Allow the engine to cool before performing maintenance or refueling.
14. Stop the engine and disconnect the spark-plug wire before cleaning, inspecting, adjusting or repairing cutting blades or other rotating parts.
15. Allow the engine to cool before covering or storing it in the storage shed.

Mowing

1. Before entering fenced back yards, check for dogs by shaking the gate. If a dog is present, ask the owner to restrain the dog until you finish your job; check again before entering.
2. Visually inspect the area to be mowed. Remove or mow around hazards such as tree stumps, roots, rocks, branches, sprinklers, hoses, electrical cords, light fixtures, pipes, clotheslines and toys.
3. Never bypass the kill switches on the mower handle.
4. Only the operator is permitted to ride on a riding mower.
5. Put the mower into neutral before starting or shutting off a riding power mower.
6. Do not place hands or feet under the mower deck.
7. Do not direct the grass discharge toward bystanders.
8. Empty the grass catcher to avoid clogging the mower.
9. Turn off the mower before dumping grass catcher or removing clogged grass from chute.
10. When using a riding mower, mow up and down the slope. Do not mow across a slope.
11. To mow across a slope, use an upright mower.

12. Keep the mower in gear when going down slopes.

Edging

1. Do not start an edger with the blade touching the ground.
2. Do not allow anyone to stand in front of, or on the unguarded side of the blade while the edger is in operation.
3. Operate the edger at full blade speed.
4. When edging along roads, driveways or parking lots, stay as close to the curb as possible.

Line Trimming/Weed Eater/Brush cutters

1. Do not start the brush cutter if anyone is within 30 feet of it.
2. Place the brush cutter on firm ground or other solid surface in open area before starting it.
3. Before refueling, remove the trimmer from your harness, place the trimmer on the ground and allow the engine to cool.
4. Stop the brush cutter before putting it down.
5. Keep the tool clear of you when you are cutting.
6. Do not wrap the starter rope around your hand.
7. Do not allow the grip to snap back; guide the starter rope as it rewinds.
8. Hold the brush cutter with two hands and wear the harness.
9. Do not cut above waist level; use the tool at ground level.

Backpack Blowers

1. Read and follow the manufacturer's routine and preventive maintenance schedule posted on the storage closet wall.
2. Only use grip locations as specified by the manufacturer as a handhold when operating the blower.
3. Before refueling, remove the blower from your harness, place the blower on the ground and allow the engine to cool.
4. Do not pour fuel into the tank of a running engine.
5. Allow the engine to cool before performing maintenance or refueling.
6. Do not smoke while servicing, using or refueling the blower.
7. Do not use the blower to clean yourself.
8. Do not direct the blower toward bystanders.

Chain Saws

1. When transporting a chain saw by hand, stop the engine, grip the saw handle, place the muffler at the side away from your body and position the guide bar to the rear.
2. Do not remove the chain brake or alter handles, chain brake, chain or covers.
3. Always start a chain saw with a 10-inch or larger bar on the ground. Engage the chain brake, place one foot through the bottom handle, hold the top handle and pull the starter rope.
4. Do not place a chain saw on your knee when starting it.
5. Always use both hands to maintain control of the chain saw.
6. When moving from tree to tree or cut to cut, activate the chain brake, remove your finger from the trigger and keep the bar away from your body.
7. Do not operate a chain saw above your shoulder height.

8. To prevent kickback, keep the nose of the bar clear of other nearby objects during cutting.
9. Do not set a saw down while the blade is engaged.
10. Stop the engine and turn the switch to “Off” when the chain saw is to be left unattended.

Hedge and Tree Trimming

1. Wear long sleeves, long pants and gardening gloves when trimming hedges or when picking up cuttings from thorny shrubs.
2. If you discover or find a wasp nest or beehive while hedging or trimming, use the long-distance aerosol insecticide labeled “Wasp and Bee Insecticide” to spray the nest. Test with a stick or pole once again to ensure all bees/wasps are gone before continuing work.
3. Seek first aid immediately if bitten or stung by wasps or bees.
4. Do not handle caterpillars or other insects with your bare hands.
5. Do not wear dangling jewelry while using hedge clippers.
6. Position yourself so your hedge and tree-cutting movements are performed below your shoulder level.
7. Do not break branches, sticks or twigs over your legs or knees or under your feet. Use clippers, shears or a saw to cut them.

Hand 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 using the saw.
5. Do not carry a saw by the blade.
6. Return saws, clippers, and other cutting tools to their sheaths or guarded storage place after use.

Vehicle/Trailer Safety

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

Lawn Mower Blade Removal and Sharpening

1. Turn off the mower and remove the spark-plug wire before removing the blade.
2. Use an extension ratchet, or an offset wrench, to remove cutting blades. If the equipment is fitted with a blade lockdown device, engage the lockdown before beginning the blade removal/installation process. If no lockdown device is available, keep the blade from turning or slipping by holding it with a gloved hand.
3. Do not use grinding wheels that have chips, cracks or grooves.

4. Do not use the grinding wheel if it wobbles. Tag it “Out of Service.”
5. Adjust the tongue guard so that it is no more than ¼-inch from the grinding wheel.
6. Do not try to stop the grinding wheel with your hand, even if you are wearing gloves.
7. Allow blade to cool for 5 minutes after sharpening before reinstalling it on the mower.

PESTICIDE AND FERTILIZER SPRAYING OPERATORS

Pesticide and Fertilizer Spraying

1. Do not handle or spray pesticides if you have open cuts or scratches on exposed skin surfaces on your arms or hands.
2. Visually inspect the area to be sprayed for trip hazards, low branches, and clotheslines before beginning the job. Avoid these hazards as you spray.
3. Keep containers labeled “Pesticides” tightly closed when you have finished using them.
4. Do not transfer pesticides or fertilizers into an unmarked or unlabeled container.
5. Do not transport a pesticide container in the cab of a service vehicle.
6. Always spray downwind; do not stand downwind when others are spraying.
7. Do not smoke or carry smoking materials while handling or spraying from containers labeled “Pesticide” or “Fertilizer.”
8. Wash pesticide-contaminated clothes separately from other clothing.
9. Carry fresh water and soap in the service vehicle when you are going to a pesticide or fertilizer-spraying job.
10. Remove work clothes immediately whenever clothing becomes soaked or wet with liquids from containers labeled “pesticide.”
11. Walk through areas to be sprayed before spraying, and remove or “flag” low branches and clotheslines before spraying. Stand clear of these trip hazards as you spray.
12. Do not use empty or washed containers labeled “Pesticide” as eating or drinking containers.
13. At the end of the workday, spray operators should remove their work clothes and take a shower in the employee locker room before going home.
14. Refill the containers labeled “Hand wash,” “Soap Cleanser” and “Drinking Water” that are on the service vehicles before going to a pesticide or fertilizer-spraying job. Do not drink from the “Hand wash” container; do not wash hands from the “Drinking Water” container.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 1711 PLUMBING, HEATING, AIR CONDITIONING

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

SALES PERSONNEL

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

AIR-CONDITIONING, REFRIGERATION, AND HEATING MECHANICS (INSTALLATION AND SERVICE/REPAIR)

General Job Site Rules

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. Erect protective barriers or guards and warning signs prior to removing manhole covers where accessible by vehicular or pedestrian traffic.
7. Do not use a metal ladder within 50 feet of electrical power lines.
8. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
9. Do not stand on sinks, toilets or cabinets; use a step ladder.
10. Stand clear of floor openings if guardrails or covers are removed or displaced.
11. 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.
12. Seek first aid immediately if bitten or stung by wasps or bees.
13. Do not handle caterpillars or other insects with your bare hands.

Equipment Installation Safety – General 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 jewelry or coats with metal zippers when working on or near energized lines, panels, parts or equipment.
4. Do not wear watches, rings or other metallic objects when working on or near energized lines, panels, parts or equipment.

5. Wear 100 percent cotton or flame resistant shirts or jumpers (with sleeves rolled down) and protective hats when working on or near live parts, lines, and panels.
6. Do not work near any circuit that is in service without first installing barricades approved by your supervisor.

General Wiring Safety

1. Do not fish conduits or ducts until you visually determine that the fish tape or wires should not contact energized lines or equipment.
2. Do not use conductive measuring ropes or tapes when working on or near energized lines or sources.
3. Do not fasten or hang electrical extension or power cords from non-insulated staples or nails and do not suspend them by wire.
4. Wear rubber gloves or use hot sticks when placing protective equipment on/around energized voltage conductors.
5. Treat bare wire-communication conductors on structures as energized lines unless insulated conductors protect them.
6. Visually inspect and wipe down all hot line tools each day before use.
7. Do not use defective hot line tools. Mark them as defective and turn them in for repair or replacement.
8. Keep conductors that are being strung in or removed under positive control to prevent accidental contact with energized circuits.
9. If an existing line that crosses over a conductor is to be de-energized, ground the line on both sides of the crossing or treat the conductor being crossed as energized.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Respirators

1. Use the respirator provided by your supervisor for your assigned duties.
2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
3. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
4. Only use the respirator that has been issued to you.
5. Clean and disinfect your respirator with detergent solution and clean water after each use.
6. Do not wear contact lenses when wearing a respirator. Use optical inserts acquired by your supervisor.
7. Return respirators to carrying case or carton and store in your locker or storage area when the work is completed.

8. Prior to each use, inspect the respirators for missing or distorted inhalation and exhalation valves, or cracked face pieces. Do not use if any of these conditions are found.
9. Do not use respirator that has cracks, excessive dirt on the face piece, loss of elasticity in the straps, missing gaskets, and kinks in air supply hoses.
10. Perform a fit test prior to use:
 - a. First, position face piece comfortably over face and pull all straps tight. Do not wear face piece if it does not allow you to talk, if it does not fit snug over Nose Bridge or if it slips. Close off the inlet of the canister, cartridges or filters with the palm of your hands or replace the seals and inhale slightly and hold for 10 seconds. If face piece remains slightly collapsed and no inward leaking is detected, the respirator is tight enough. Use your other hand to detect air leaks around face seal. (Negative pressure test).
 - b. Second, close off the exhalation valve and blow into face piece gently. Use hands to feel any air leaking out of the seal between face piece and face. If no outward leaking is detected, the respirator is tight enough.

Spray 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 before disconnecting them.
3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled “Flammable” or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.
6. Return containers of thinners, mineral spirits and other liquids labeled “Flammable” to the storage cabinet labeled “Flammable Storage,” when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the “On” position to operate the mechanical ventilation system before and during all spraying operations.

Confined Space

1. Do not perform confined-space operations until you have received initial indoctrination and training on the county’s permit space program, regarding your duties and responsibilities.
2. If respirators are required, do not perform any operations until trained in the specifics of the respirator protection program.
3. Obtain a confined-space entry permit from your supervisor before entering the space.
4. Lock and tag “OUT OF SERVICE” all impellers, agitators, pumps or any other equipment in the tank before entering the confined space.
5. Open all manholes to the space for ventilation.
6. Do not perform hot work such as electric or gas welding or cutting in or on a confined space until the atmosphere has been determined to be safe.
7. Use mechanical forced-air ventilation when open flames or torches are used in a confined space.
8. Do not enter any confined space without a safety observer present; minimum of a two person team.

9. Use survey equipment such as an “organic vapor meter” to test and monitor the confined space for oxygen deficiency and explosive or hazardous gases/fumes. If the organic vapor meter reading for the explosive gases is above 10 percent of the LEL and if the oxygen reading is below 19.5 percent or greater than 23.5 percent, do not enter the confined space.

Sheet Metal Air-Duct Fabrication – Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Drill Table Safety

1. Insert the work piece into the table grooves before starting the drilling process.
2. Use brushes or vacuum machinery to remove metal chips, shavings and other debris from the drill table. Do not use your bare hands.
3. Do not use dull, cracked or bent drill bits.

Riveting and Bolting

1. Do not use your hands to guide a bit into place when riveting or bolting steel.
2. Disconnect the snap and plunger from an air hammer when it is not in use.
3. Do not pass air-powered tools by the hose from one worker to another.
4. Do not throw material from one person to another. Use tag lines and a basket to hoist bolts, washers, drift pins, and tools.
5. Use a receptacle or a net to catch rivets or bolts that are knocked off or backed out from your work area.
6. Do not carry nuts, bolts, rivets, or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.

10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Sanding Operations

1. Wear gloves, aprons, dust masks, goggles and hearing protection when operating the sander.
2. When using a disk sander, sand on the downward side of the disk.
3. Do not use your hands to hold the part to be sanded. Use clamps and fixtures.
4. Do not eat, drink, or use tobacco products while using sanders.
5. After leaving the sanding area wash hands and exposed skin surfaces of arms.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the “On” position.
7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.

12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.
14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the “Off” position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic or Poisonous*.

3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
4. Only use red color-coded metal containers for transferring the liquid.
5. Electrically ground and bond the containers as follows:
6. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
7. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
8. You are now ready to dispense the liquid from the bulk container into the open receiving container.
9. Upon completion, replace the lid on the receiving container and remove the bonding wire.
10. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
11. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
12. 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.
13. Do not use chemicals from unlabeled containers and unmarked cylinders.
14. Do not smoke while handling chemicals labeled “Flammable.”
15. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
16. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”

13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.

3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.

7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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.

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 whenever 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.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator’s cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on “soft” ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer’s approval.

9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Lifting Equipment (Chains, Cables, Ropes, Slings)

1. Do not use chain slings if links are cracked, twisted, stretched or bent.
2. Do not use a kinked chain.
3. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
4. Do not place your hands between the sling and its load when the sling is being tightened around the load.
5. Lift the load from the center of hooks, not from the point.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

Lift gates

1. Keep your hands, fingers and arms away from edges of lift gate platform while it is moving.
2. Do not lower the lift gate until everyone is clear of its landing area.
3. Secure equipment on the truck by using latches or rope.

Vehicle/Trailer Safety

1. Set the parking brake in the towing vehicle and use wheel blocks to chock the wheels of the trailer before removing any equipment from the trailer.
2. Secure equipment and fuel tanks to the vehicle with chains or straps to eliminate or minimize shifting of the load.
3. No one is permitted to ride in the trailer.
4. Use ramps to load and unload mowers and edges from the trailer.

5. Take slow, wide turns when towing trailers.
6. Do not exceed the load capacity as posted on the door of the trailer.
7. Do not place all the heavy equipment on one side of the trailer.

PLUMBERS (MASTERS AND APPRENTICES)

General Installation Rules & Best Practice 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. See page IV.1, “First Aid Best practice guidelines.”
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 step ladder.
12. Do not work on open sided floors, elevated walkways or elevated platforms if there are 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.

Work Clothing and Personal Protective Equipment

1. Wear the face shield over your goggles or safety glasses during open furnace, welding, soldering or gas cutting operations.
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 the welding helmet or welding goggles during welding operations.
4. Wear the dielectric gloves when working on electric current.
5. Wear your earplugs or earmuffs in areas posted “Hearing Protection Required.”
6. Safety goggles should be worn while welding or cutting metal.
7. Do not wear long sleeve shirts that do not have button-down cuffs.
8. Do not wear jewelry or coats with metal zippers to work.

Respirators

1. Use the respirator provided by your supervisor for your assigned duties.
2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.

3. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
4. Only use the respirator that has been issued to you.
5. Clean and disinfect your respirator with detergent solution and clean water after each use.
6. Do not wear contact lenses when wearing a respirator. Use optical inserts acquired by your supervisor.
7. Return respirators to carrying case or carton and store in your locker or storage area when the work is completed.
8. Prior to each use, inspect the respirators for missing or distorted inhalation and exhalation valves, or cracked face pieces. Do not use if any of these conditions are found.
9. Do not use respirator that has cracks, excessive dirt on the face piece, loss of elasticity in the straps, missing gaskets, and kinks in air supply hoses.
10. Perform a fit test prior to use:
 - a. First, position face piece comfortably over face and pull all straps tight. Do not wear face piece if it does not allow you to talk, if it does not fit snug over Nose Bridge or if it slips. Close off the inlet of the canister, cartridges or filters with the palm of your hands or replace the seals and inhale slightly and hold for 10 seconds. If face piece remains slightly collapsed and no inward leaking is detected, the respirator is tight enough. Use your other hand to detect air leaks around face seal. (Negative pressure test).
 - b. Second, close off the exhalation valve and blow into face piece gently. Use hands to feel any air leaking out of the seal between face piece and face. If no outward leaking is detected, the respirator is tight enough.

Confined Space

1. Do not perform confined-space operations until you have received initial indoctrination and training on the county's permit space program, regarding your duties and responsibilities.
2. If respirators are required, do not perform any operations until trained in the specifics of the respirator protection program.
3. Obtain a confined-space entry permit from your supervisor before entering the space.
4. Lock and tag "OUT OF SERVICE" all impellers, agitators, pumps or any other equipment in the tank before entering the confined space.
5. Open all manholes to the space for ventilation.
6. Do not perform hot work such as electric or gas welding or cutting in or on a confined space until the atmosphere has been determined to be safe.
7. Use mechanical forced-air ventilation when open flames or torches are used in a confined space.
8. Do not enter any confined space without a safety observer present; minimum of a two person team.
9. Use survey equipment such as an "organic vapor meter" to test and monitor the confined space for oxygen deficiency and explosive or hazardous gases/fumes. If the organic vapor meter reading for the explosive gases is above 10 percent of the LEL and if the oxygen reading is below 19.5 percent or greater than 23.5 percent, do not enter the confined space.

Fabrication Operations

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on 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.

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 whenever 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.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
5. Verify the locked-out switch or control cannot be overridden.
6. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
7. Press all start buttons to see if the equipment starts.
8. Ensure the system you should be working on is the same one that has been locked out.
9. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
10. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.

4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the “On” position.
7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.
14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the “Off” position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.

6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

Lift gates

1. Keep your hands, fingers and arms away from edges of lift gate platform while it is moving.

2. Do not lower the lift gate until everyone is clear of its landing area.
3. Secure equipment on the truck by using latches or rope.

Vehicle/Trailer Safety

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

WAREHOUSE PERSONNEL

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled "Flammable."
12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Stocking Shelves

1. When manually stocking shelves, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Do not let items overhang from shelves into walkways.
3. Place heavier merchandise on the lower or middle shelves.
4. Remove one object at a time from shelves.
5. Place items on shelves so they lie flat and do not lean against each other.

Hand Truck Safety

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

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

BEST PRACTICE GUIDELINES FOR SIC #1711 CONCRETE WORK

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

HEAVY EQUIPMENT OPERATORS

Job Site Safety

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. Flag workers should wear reflective warning vests when controlling vehicle traffic.
3. Do not walk under partially demolished walls or floors.
4. Stop working outdoors and seek shelter during lightning storms.

Heavy Equipment Safety

1. Wear hard hats, hearing protection and safety goggles while operating heavy equipment.
2. Wear seat belts when operating scrapers, loaders, dozers, tractors and graders.
3. No passengers are permitted on heavy equipment.
4. Keep windows and windshield clean.
5. Do not use heavy equipment if its horn and backup alarm do not sound.
6. Do not crawl under the raised dump body during inspection of a dump truck.
7. Turn off the engine before leaving heavy equipment unattended.
8. Do not jump “Off” or “On” any heavy equipment.
9. Do not stay in the cab of haulage vehicles while the payload is being loaded or unloaded by cranes or loaders.
10. When finished using bulldozers or loaders, land the blade on the ground, set the brakes, turn off the power and shift the gear lever into neutral.
11. Keep heavy equipment in gear when going down grade. Do not use neutral.
12. Do not enter the bucket swing radius while the equipment is in operation.
13. Display the “Slow Moving Vehicle” sign when operating heavy equipment on roads.

Backhoe/Power Shovel Operations

1. Do not operate backhoes, power shovels and other heavy equipment within 2 feet from the edge of the excavation.
2. Do not use a bucket or other attachments for a staging or temporary platform for workers.
3. 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.

Asphalt Paving

1. Do not smoke or eat while performing asphalt-paving work.
2. Do not mount or dismount paving equipment on the traffic side.
3. Always mount and dismount paver using installed walkways, steps, and handrails.
4. Do not leave loose tools, lunchboxes or other items on operator’s platform.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.

6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled “Reduces Pressure to 30 psi” to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the “Off” position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Lifting Equipment (Chains, Cables, Ropes, Slings)

1. Do not use chain slings if links are cracked, twisted, stretched or bent.
2. Do not use a kinked chain.

3. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
4. Do not place your hands between the sling and its load when the sling is being tightened around the load.
5. Lift the load from the center of hooks, not from the point.

Lifting Best practice guidelines

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

General Job Site Rules

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. Erect protective barriers or guards and warning signs prior to removing manhole covers where accessible by vehicular or pedestrian traffic.
7. Do not use a metal ladder within 50 feet of electrical power lines.
8. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
9. Do not stand on sinks, toilets or cabinets; use a step ladder.
10. Stand clear of floor openings if guardrails or covers are removed or displaced.
11. 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.
12. Seek first aid immediately if bitten or stung by wasps or bees.
13. Do not handle caterpillars or other insects with your bare hands.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.

10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.

3. Use pliers with an insulated handle 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. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.

23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the "On" position.
7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.
14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the "Off" position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled "Reduces Pressure to 30 psi" to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the "Off" position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.

10. Do not use compressed air for comfort cooling.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic or Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:
4. Only use red color-coded metal containers for transferring the liquid.
5. Electrically ground and bond the containers as follows:
 - a. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - b. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - c. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - d. Upon completion, replace the lid on the receiving container and remove the bonding wire.
6. Do not perform "hot work," such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled "Flammable" or "Combustible."
7. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
8. 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.
9. Do not use chemicals from unlabeled containers and unmarked cylinders.
10. Do not smoke while handling chemicals labeled "Flammable."
11. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
12. Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop rags.

Asphalt Paving

1. Do not smoke or eat while performing asphalt-paving work.
2. Do not mount or dismount paving equipment on the traffic side.
3. Always mount and dismount paver using installed walkways, steps, and handrails.
4. Do not leave loose tools, lunchboxes or other items on operator's platform.

Vehicle/Trailer Safety

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

FINISHING PERSONNEL

General Job Site Rules

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. Erect protective barriers or guards and warning signs prior to removing manhole covers where accessible by vehicular or pedestrian traffic.
7. Do not use a metal ladder within 50 feet of electrical power lines.
8. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
9. Do not stand on sinks, toilets or cabinets; use a step ladder.
10. Stand clear of floor openings if guardrails or covers are removed or displaced.
11. 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.
12. Seek first aid immediately if bitten or stung by wasps or bees.
13. Do not handle caterpillars or other insects with your bare hands.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.

6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.

5. Do not use a hammer as a wedge or a pry bar.

Electrical Powered Tools

26. Do not use power equipment or tools on which you have not been trained.
27. Keep power cords away from the path of drills, saws, vacuum cleaners, floor polishers, mowers, slicers, knives, grinders, irons and presses.
28. Do not use cords that have splices, exposed wires, or cracked or frayed ends.
29. Do not carry plugged-in equipment or tools with your finger on the switch.
30. Do not carry equipment or tools by the cord.
31. Disconnect the tool from the outlet by pulling on the plug, not the cord.
32. Turn the power switch of the tool to "Off" before plugging or unplugging it.
33. Do not leave tools that are "On" unattended.
34. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.
35. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled "Flammable" nor in an explosive atmosphere such as a paint spray booth.
36. Turn the power switch of electrical tools to "Off" and then unplug from the outlet before attempting repairs or service work. Tag the tool "Out of Service."
37. Do not use extension cords or other three pronged power cords that have a missing prong.
38. Do not remove the ground prong from electrical cords.
39. Do not use an adapter such as a cheater plug that eliminates the ground.
40. Do not plug multiple electrical cords into a single outlet.
41. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
42. Do not drive over, drag, step on or place objects on a cord.
43. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
44. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
45. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
46. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
47. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
48. 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.
49. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
50. 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 Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
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 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

SAFETY BEST PRACTICE GUIDELINES FOR SIC #1721 PAINTING, PAPER HANGING

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

PAINTING PERSONNEL

Painting Safety

1. Always wash your hands with soap and water after using paints. Do not use mineral spirits, paint thinner, acetone or any other toxic solvents to remove paint from your skin.
2. Store rags that have oil or paint on them in closed metal containers labeled “oily rags.”
3. Press the pressure relief valve on painting canisters and painting guns prior to disconnecting them.
4. Do not store food or eat where spray painting is being performed.
5. Close the lids of containers of paint and thinner tightly after each use or when not being used.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

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 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
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5. Do not use honing steels that do not have disc guards.

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9. Do not use knives that have broken or loose handles.
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11. Do not leave knives in sinks full of water.
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13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
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4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

PAPER HANGING PERSONNEL

Hand Tool Safety

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3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.

12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
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3. Do not strike one hammer against another hammer.
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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. Do not force a screwdriver by using a hammer or pliers on it.
5. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
6. Use a screwdriver that has an insulated handle for electrical work.
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Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

BLASTING AND CLEANING PERSONNEL

Blasting Safety

1. Only blasters may use blasting equipment.
2. 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.
3. Do not use compressed air to clean equipment or yourself.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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

Pliers

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2. Do not slip a pipe over the handles of pliers to increase leverage.
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4. Do not use pliers that are cracked, broken or sprung.
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4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
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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 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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.
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16. Do not lean out from the scaffold. Do not rock the scaffold.
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6. Do not attempt to catch a falling knife.
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9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 1731 ELECTRICAL WORK

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

ELECTRICIANS/JOURNEYMEN/MECHANICS

General Rules

1. Do not use a metal ladder on rooftops or within 50 feet of electrical power lines.
2. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
3. Do not work outdoors during lightning storms.
4. Do not stand on sinks, toilets or cabinets; use a stepladder.
5. Do not work on open sided floors, elevated walkways or elevated platforms if there are no guardrails in place.
6. Stand clear of floor openings if guardrails or covers are removed or displaced.

Heat Exhaustion/Sun Exposure

1. Keep your shirt on to avoid dehydration and sunburn.
2. Drink plenty of clear liquids during your breaks.
3. Take breaks in shaded areas.

Work Area Protection

1. Place signs (lights) well before the work area to permit oncoming motorists time to react.
2. Erect protective barriers or guards and warning signs prior to removing manhole covers or making excavations where accessible by vehicular or pedestrian traffic.
3. Position the work vehicle to guard the work area while work is in progress.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

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 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 power switch of the tool to "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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the “On” position.
7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.

14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the “Off” position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
5. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
6. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Portable Welding/Soldering Operations

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

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

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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. Do not force a screwdriver by using a hammer or pliers on it.
5. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
6. Use a screwdriver that has an insulated handle for electrical work.
7. Do not carry a screwdriver in your pocket.
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 circuit.

10. When using a spiral ratchet screwdriver, push down firmly and slowly.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

Clamps

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

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

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 percent 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. Before use, visually inspect body belts and straps for defects, wear, and damage.
7. When working with lines of 600 volts or more:
 - a. Wear rubber gloves or use hot sticks when placing protective equipment on/around energized voltage conductors.
 - b. Do not work on the line that is removed from service until the line is cleared, tagged, tested and grounded.
 - c. Treat bare-wire communication conductors on structures as energized lines unless they are protected by insulated conductors.
 - d. 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.

8. Do not remove any ground until all employees are clear of the temporary grounded lines or equipment.
9. After a capacitor has been disconnected from its source of supply, wait 5 minutes before short-circuiting and grounding it.
10. Do not contact the terminals, jumpers or line wires connected directly to capacitors until the capacitors have been short-circuited and/or grounded.
11. Visually inspect and wipe down all hot line tools each day before use.
12. Do not wear rubber gloves with protectors while using hot line tools.
13. Do not use defective hot line tools. Mark them as defective and turn them in for repair or replacement.

Stringing/Removing De-energized 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 de-energized, 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.

General Electrical Device/Fixture Installation Safety (continued)

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.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

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. 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.
8. Lift the load from the center of hooks, not from the point.

Confined Spaces

1. Do not enter a confined space without reading and following the “confined space entry procedure.”
2. Obtain a confined-space entry permit from your supervisor before entering a confined space.

Prior to Entry

1. Get locking devices and labels from your supervisor to lock out and tag “Out of Service” all equipment in the confined space before entering the confined space.
2. Open all windows, doors or manholes of the confined space for ventilation.
3. Use a Combustible Gas Analyzer to test the confined space for an oxygen deficiency or accumulated combustible gases. Do not enter the confined space if the reading for the Combustible Gas Analyzer is above 10 percent LFL and the oxygen level is below 19.5 percent, or greater than 23.5 percent.

When Entering

1. Do not enter the confined space unless an assigned observer or lookout person is posted at the entrance to the confined space. If you are assigned as the outside observer, do not go inside the confined space under any circumstances and keep the entrant in your view at all times.
2. Stay in constant view of the observer when you are working inside the confined space.

Access and Egress Safety

1. Use ladders, structural ramps or stairways as a means of access or egress from excavations or restricted spaces.
2. Do not climb a ladder unless it extends at least 3 feet or three rungs beyond the edge of the trench.

Driving/Vehicle Safety

1. Turn the vehicle off before fueling it.
2. Do not smoke while fueling a vehicle.
3. Wash hands with soap and water if you spill gasoline on your hands.
4. Shut your door and fasten your seat belt before moving the vehicle.
5. Obey all traffic laws and signals at all times.
6. Maintain a three-point contact using both hands and one foot or both feet and one hand when climbing into and out of vehicles.

STOREROOM/STOCKROOM PERSONNEL

General Storeroom/Stockroom Safety

1. Wear leather gloves when handling materials such as copper or aluminum wire.
2. Do not attempt to catch falling materials.
3. Do not try to kick objects out of pathways. Push or carry them out of the way.
4. Move slowly when approaching blind corners.
5. Do not run on stairs or take more than one step at a time.
6. Do not jump from elevated places such as truck beds, platforms or ladders.
7. Do not lift slippery or wet objects; use a hand truck.
8. Obey all safety and danger signs posted in the workplace.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
4. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
5. Do not place material such as boxes or trash in walkways and passageways.
6. Keep power cords away from path of vacuum cleaners and floor polishers.
7. Keep doors fully open or fully closed.
8. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
9. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Stocking Shelves

1. When manually stocking shelves, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Do not let items overhang from shelves into walkways.
3. Place heavier merchandise on the lower or middle shelves.
4. Remove one object at a time from shelves.
5. Place items on shelves so they lie flat and do not lean against each other.
6. Do not climb the racking to stock or retrieve merchandise; use a ladder.

Handling Chemicals

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you should 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 gloves.
4. Do not use chemicals from unlabeled containers and unmarked cylinders.
5. Do not drag containers labeled “Flammable.”
6. Do not store chemical containers labeled “Oxidizer” with containers labeled “Corrosive” or “Caustic.”
7. Do not smoke while handling chemicals labeled “Flammable.”
8. Do not store chemicals labeled “Flammable” near sources of ignition such as portable heaters.
9. Do not handle or load any containers of chemicals if their containers are cracked or leaking.

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.

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 whenever 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.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 1741 MASONRY, STONE WORK

OFFICE PERSONNEL

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.

9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to “off” and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

HEAVY EQUIPMENT OPERATORS – (CRANE, POWER SHOVEL, BACKHOE, AND DUMP TRUCK OPERATORS)

Job Site Safety

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. Flag workers should wear reflective warning vests when controlling vehicle traffic.
3. Do not walk under partially demolished walls or floors.
4. Stop working outdoors and seek shelter during lightning storms.

Housekeeping

1. Do not store or leave items on heavy equipment.
2. Return tools to their storage places after use.
3. Do not use gasoline for cleaning purposes.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.

2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.

2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Lifting Equipment (Chains, Cables, Ropes, Slings)

1. Do not use chain slings if links are cracked, twisted, stretched or bent.
2. Do not use a kinked chain.
3. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
4. Do not place your hands between the sling and its load when the sling is being tightened around the load.
5. Lift the load from the center of hooks, not from the point.

Heavy Equipment Safety – General

1. Wear hard hats, hearing protection and safety goggles while operating heavy equipment.
2. Wear seat belts when operating scrapers, loaders, dozers, tractors and graders.
3. No passengers are permitted on heavy equipment.
4. Keep windows and windshield clean.
5. Do not use heavy equipment if its horn and backup alarm do not sound.
6. Do not crawl under the raised dump body during inspection of a dump truck.
7. Turn off the engine before leaving heavy equipment unattended.
8. Do not jump “Off” or “On” any heavy equipment.
9. Do not stay in the cab of haulage vehicles while the payload is being loaded or unloaded by cranes or loaders.
10. When finished using bulldozers or loaders, land the blade on the ground, set the brakes, turn off the power and shift the gear lever into neutral.
11. Keep heavy equipment in gear when going down grade. Do not use neutral.
12. Do not enter the bucket swing radius while the equipment is in operation.
13. Display the “Slow Moving Vehicle” sign when operating heavy equipment on roads.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator’s cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on “soft” ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer’s approval.

9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Vehicle Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when truck is being refueled.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

GENERAL LABOR PERSONNEL – (NON-SKILLED LABORERS, TEMPORARY LABORERS)

Job Site Safety

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. Flag workers should wear reflective warning vests when controlling vehicle traffic.
3. Do not walk under partially demolished walls or floors.
4. Stop working outdoors and seek shelter during lightning storms.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.

14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.

11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

GENERAL LABOR PERSONNEL – (NON-SKILLED LABORERS, TEMPORARY LABORERS)

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

MASONRY PERSONNEL (BRICK, BLOCK LAYERS, STONE SETTERS)

Job Site Safety

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. Flag workers should wear reflective warning vests when controlling vehicle traffic.
3. Do not walk under partially demolished walls or floors.
4. Stop working outdoors and seek shelter during lightning storms.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.

16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.

2. Wear your 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 you have finished using them.

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Lifting Equipment (Chains, Cables, Ropes, Slings)

1. Do not use chain slings if links are cracked, twisted, stretched or bent.
2. Do not use a kinked chain.
3. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
4. Do not place your hands between the sling and its load when the sling is being tightened around the load.
5. Lift the load from the center of hooks, not from the point.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.

11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Masonry Saw Safety

1. Wear the prescribed personal protective equipment such as goggles, gloves, dust masks and hearing protection when operating masonry saws to cut brick, block or stone.
2. Turn off the saw before making measurements, adjustments or repairs.
3. Keep hands away from the exposed blade.
4. Operate the saw at full cutting speed with a sharp blade to prevent kickbacks.
5. If the saw becomes jammed, turn off the power before pulling out the incomplete cut.
6. Do not alter the blade guard.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 1742
PLASTERING DRYWALL, ACOUSTICAL INSULATION WORK**

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

GENERAL LABOR PERSONNEL

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Lifting Best practice guidelines

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 should 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 a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

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

1. 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.
2. Position panels to lean flat against a wall and do not wobble or slide.
3. Push and slide panels along their edge or get assistance from a co-worker.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.

7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Work Area Protection

1. Place signs (lights) well before the work area to permit oncoming motorists time to react.
2. Erect protective barriers or guards and warning signs prior to removing manhole covers or making excavations where accessible by vehicular or pedestrian traffic.
3. Position the work vehicle to guard the work area while work is in progress.

Job Site Safety

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. Flag workers should wear reflective warning vests when controlling vehicle traffic.
3. Do not walk under partially demolished walls or floors.
4. Stop working outdoors and seek shelter during lightning storms.

Electrical Safety

1. Do not use an electrical tool if its housing is cracked.
2. Do not use electrical tools while working from a metal ladder unless the ladder has rubber feet.
3. Turn the tool off before plugging or unplugging it.
4. Do not leave tools unattended that are “On.”
5. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.
6. 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.
7. Do not carry equipment or tools by the cord.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.

15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Electrical Cords

1. Keep power cords away from path of drills and wire soldering and cutting equipment.
2. Do not use cords that have splices, exposed wires or cracked or frayed ends.
3. Do not remove the ground prong from electrical cords.
4. Do not use an adapter such as a cheater plug that eliminates the ground.
5. Do not plug multiple electrical cords into a single outlet.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the "On" position.
7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.

14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the “Off” position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled “Reduces Pressure to 30 psi” to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the “Off” position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when truck is being refueled.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Vehicle/Trailer Safety

1. Set the parking brake in the towing vehicle and use wheel blocks to chock the wheels of the trailer before removing any equipment from the trailer.
2. Secure equipment and fuel tanks to the vehicle with chains or straps to eliminate or minimize shifting of the load.
3. No one is permitted to ride in the trailer.
4. Use ramps to load and unload mowers and edges from the trailer.

5. Take slow, wide turns when towing trailers.
6. Do not exceed the load capacity as posted on the door of the trailer.
7. Do not place all the heavy equipment on one side of the trailer.

LATHERS

Lifting Safety (Bags, Cans, Buckets)

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 should 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 of a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

Construction Safety

Sand Blasting Safety

1. Only blasters may use blasting equipment.
2. 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.
3. Do not use compressed air to clean equipment or yourself.

Restoration Job and Asbestos is Suspected

1. Do not perform asbestos-removal operations, unless you have been trained, qualified and certified in asbestos removal best practice guidelines.
2. Use the respirator that has been fit tested and assigned to you by your supervisor.
3. Always assume materials used prior to 1976, such as plaster and blown insulation, contain asbestos.
4. Do not use sanders or power devices that may create dust or airborne particles.
5. Do not dry scrape, bead blast or mechanically pulverize any existing plaster or blown insulation.

Fiberglass Batts or Sprayed-on Insulation

1. Do not take work clothes home when exposed to sprayed-on insulation or fiberglass batts.
2. Change your work clothes before leaving the job site.
3. Place work clothes contaminated with fiberglass or sprayed-on insulation in a closed labeled container approved by your employer.
4. Use your respirator when working with sprayed-on insulation or fiberglass.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county's respiratory protection program.

2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

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 cementitious mixtures, pastes or spray-on insulation 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.

Powder Actuated Tools

1. Wear impact-resistant safety goggles or face shields when operating any powder-actuated tools.
2. When using powder-actuated tools, do not drive fasteners into structural steel without first looking to see if the steel is backed by a steel plate or barricade, and to see if all personnel are away from the direct line of fire.
3. Do not attempt to fasten through a pre-drilled hole unless the powder-actuated tool has a hole locator.
4. Keep your head and body behind the powder-actuated tool when firing it.
5. Do not fasten steel beams at a distance closer than ½-inch from the edge of the steel.
6. Before using powder-actuated tools do not alter, bypass, or remove the shield or guard at the muzzle end of the powder-actuated tool.
7. Do not load a powder-actuated tool until you are ready to fire it.

Hydraulic/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 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.

FINISHING PERSONNEL – (TAPPING, BEDDING, SANDING)

Hazardous Materials

Mixing Cementitious Components

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

2. Do not handle lime or cementitious mixtures if you have open cuts or scratches on exposed skin surfaces such as your arms or hands.
3. Use personal protective clothing or equipment such as canvas gloves and protective eyewear, to avoid cement poison or burns.
4. Open doors and 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.)

1. Do not use a metal ladder on rooftops or within 50 feet of electrical power lines.
2. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
3. When working outdoors, drink plenty of fluids and keep shirts on to avoid dehydration and sunburn.

Using Joint Compounds

1. Wear protective gloves when handling compounds or 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 joint compound or 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 joint/filler compounds or chemicals from unlabeled containers.
5. Do not store chemical containers labeled “Oxidizer” with containers labeled “Corrosive” or “Caustic.”
6. Always use goggles and gloves when handling joint/filler compounds or chemicals labeled “Corrosive” or “Caustic.”

Applying Finishes: Plaster, Coquina, Popcorn, or Other

1. Do not smoke or eat while performing stucco or “popcorn” finishes.
2. Stand clear of mixing or blowing operations.
3. Do not stand, work or operate pneumatic equipment such as blowers with hoses within three feet of any unprotected roof opening or within 5 feet of any unprotected roof edge.

Job Site

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. Flag workers should wear reflective warning vests when controlling vehicle traffic.
3. Do not walk under partially demolished walls or floors.
4. Stop working outdoors and seek shelter during lightning storms.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.

3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

WAREHOUSE PERSONNEL

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.

3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Warehouse Safety

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Hand Truck Safety

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

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.

8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled “Flammable.”
12. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

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.

Manual Stacking and Handling

1. Store all wallboard flat.
2. Do not store boards vertically, this practice should damage the edges creating unstable stacks.
3. 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.
4. 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 re-stacking.
5. Use a co-worker to assist handling the boards when stocking. Coordinate and communicate your movements with those of your co-worker’s.

Heavy Equipment Safety – General

1. Wear hard hats, hearing protection and safety goggles while operating heavy equipment.
2. Wear seat belts when operating scrapers, loaders, dozers, tractors and graders.
3. No passengers are permitted on heavy equipment.
4. Keep windows and windshield clean.
5. Do not use heavy equipment if its horn and backup alarm do not sound.
6. Do not crawl under the raised dump body during inspection of a dump truck.
7. Turn off the engine before leaving heavy equipment unattended.
8. Do not jump “Off” or “On” any heavy equipment.
9. Do not stay in the cab of haulage vehicles while the payload is being loaded or unloaded by cranes or loaders.
10. When finished using bulldozers or loaders, land the blade on the ground, set the brakes, turn off the power and shift the gear lever into neutral.
11. Keep heavy equipment in gear when going down grade. Do not use neutral.
12. Do not enter the bucket swing radius while the equipment is in operation.
13. Display the “Slow Moving Vehicle” sign when operating heavy equipment on roads.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 1751 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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

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 Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.

3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign “Detour.”
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.

10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Lifting Best practice guidelines

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 should 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 a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. 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 pneumatic tools that have handles with burrs or cracks.

3. Attach the pressure-reducing nozzle that is labeled “Reduces Pressure to 30 psi” to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the “Off” position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Powder Actuated Tools

1. Wear impact-resistant safety goggles or face shields when operating any powder-actuated tools.
2. When using powder-actuated tools, do not drive fasteners into structural steel without first looking to see if the steel is backed by a steel plate or barricade, and to see if all personnel are away from the direct line of fire.
3. Do not attempt to fasten through a pre-drilled hole unless the powder-actuated tool has a hole locator.
4. Keep your head and body behind the powder-actuated tool when firing it.
5. Do not fasten steel beams at a distance closer than ½-inch from the edge of the steel.
6. Before using powder-actuated tools do not alter, bypass, or remove the shield or guard at the muzzle end of the powder-actuated tool.
7. Do not load a powder-actuated tool until you are ready to fire it.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

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.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 1752 FLOORLAYING, ELSEWHERE CLASSIFIED

Carpet Laying

1. Carry knives in a leather pouch.
2. Keep sealing iron in the sealing iron tray when iron is energized.
3. When using power stretchers on long pulls, make sure the power head handle is locked down. Do not sit on handle or attempt to hold the handle down with your hand.
4. Do not leave knives and tools lying on the floor.
5. Wear kneepads.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.

23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are 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 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.

6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

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.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.

5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Lifting Best practice guidelines

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 should 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 a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Powder Actuated Tools

1. Wear impact-resistant safety goggles or face shields when operating any powder-actuated tools.
2. When using powder-actuated tools, do not drive fasteners into structural steel without first looking to see if the steel is backed by a steel plate or barricade, and to see if all personnel are away from the direct line of fire.
3. Do not attempt to fasten through a pre-drilled hole unless the powder-actuated tool has a hole locator.
4. Keep your head and body behind the powder-actuated tool when firing it.
5. Do not fasten steel beams at a distance closer than ½-inch from the edge of the steel.
6. Before using powder-actuated tools do not alter, bypass, or remove the shield or guard at the muzzle end of the powder-actuated tool.
7. Do not load a powder-actuated tool until you are ready to fire it.

Power Nailers

1. Keep your hands well clear of the power nailer's plunger head and the hammer.
2. Do not use a steel hammer to strike the power nailer.
3. Always wear your safety glasses when nailing.

Resilient Floor Coverings

1. Before you begin installation of the floor coverings, ventilate the area by opening windows, doors, or by using an exhaust fan.
2. Read labels and safety recommendations on all materials used in installation, i.e. adhesives, solvents, seam sealers, polishers, patching compounds, and cleaners.
3. Never leave propane torches that are being used for heating unattended.
4. Keep all flammable materials away from flame or spark.
5. Flush your skin or eyes with water if they come in contact with hazardous material.
6. Use heat resistant gloves when using heating tools.
7. Wear kneepads.
8. Keep the work area well lighted and uncluttered.

NOTE: When work involves the removal of a resilient floor covering structure that contains or is assumed to contain asbestos, always check with supervisor before proceeding.

Sanding Operations

1. Wear gloves, aprons, dust masks, goggles and hearing protection when operating the sander.
2. When using a disk sander, sand on the downward side of the disk.
3. Do not use you hands to hold the part to be sanded. Use clamps and fixtures.
4. Do not eat, drink, or use tobacco products while using sanders.
5. After leaving the sanding area wash hands and exposed skin surfaces of arms.

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.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 1761 ROOFING

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

STOCK/SUPPLY/MATERIAL HANDLING PERSONNEL

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.

4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

ROOFING PERSONNEL

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.

12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

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 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 should 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, 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.

Respirators

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

Infection Control

1. Do not use gloves that are torn, cut or punctured.
2. Clean up any broken glass using a dustpan and broom. Do not pick up broken glass with your bare hands.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toe board or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

Lifting Equipment (Chains, Cables, Ropes, Slings)

1. Do not use chain slings if links are cracked, twisted, stretched or bent.
2. Do not use a kinked chain.
3. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
4. Do not place your hands between the sling and its load when the sling is being tightened around the load.
5. Lift the load from the center of hooks, not from the point.

General Job Site Rules

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. Erect protective barriers or guards and warning signs prior to removing manhole covers where accessible by vehicular or pedestrian traffic.
7. Do not use a metal ladder within 50 feet of electrical power lines.
8. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
9. Do not stand on sinks, toilets or cabinets; use a stepladder.
10. Stand clear of floor openings if guardrails or covers are removed or displaced.
11. 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.
12. Seek first aid immediately if bitten or stung by wasps or bees.
13. Do not handle caterpillars or other insects with your bare hands.

Vehicular Safety (Trucks and All Terrain Vehicles).

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 should 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.

Vehicle Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when truck is being refueled.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Vehicle/Trailer Safety

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

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

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. Do not force a screwdriver by using a hammer or pliers on it.
5. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.

6. Use a screwdriver that has an insulated handle for electrical work.
7. Use a drill, nail, or an awl to make a starting hole for screws.
8. Do not carry a screwdriver in your pocket.
9. Do not use a screwdriver if your hands are wet, oily or greasy.
10. When using the spiral ratchet screwdriver, push down firmly and slowly.
11. Do not use a screwdriver to test the charge of a circuit.

Powder Actuated Tools

1. Wear impact-resistant safety goggles or face shields when operating any powder-actuated tools.
2. When using powder-actuated tools, do not drive fasteners into structural steel without first looking to see if the steel is backed by a steel plate or barricade, and to see if all personnel are away from the direct line of fire.
3. Do not attempt to fasten through a pre-drilled hole unless the powder-actuated tool has a hole locator.
4. Keep your head and body behind the powder-actuated tool when firing it.
5. Do not fasten steel beams at a distance closer than ½-inch from the edge of the steel.
6. Before using powder-actuated tools do not alter, bypass, or remove the shield or guard at the muzzle end of the powder-actuated tool.
7. Do not load a powder-actuated tool until you are ready to fire it.

Hydraulic/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 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.

Heat Exhaustion/Sun Exposure

1. 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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.

10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.

25. 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
3. (MSDS) for each chemical product used in your workplace.
4. 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.
5. Do not use chemicals from unlabeled containers and unmarked cylinders.
6. Do not perform “hot work” such as welding, metal grinding or other spark producing operations within 50 feet of containers labeled “Flammable” or “Combustible.”
7. Do not drag containers labeled “Flammable.”
8. Do not store chemical containers labeled “Oxidizer” with containers labeled “Corrosive” or “Caustic.”
9. 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. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on 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.

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 whenever 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, and 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 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 3 feet of any unprotected roof opening or within 5 feet of any unprotected roof edge.

Single-Ply Roofing

1. Wear respirators when hot air welding PVC or when performing adhesive welding best practice guidelines.

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. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.

6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

General Job Site Rules

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. Erect protective barriers or guards and warning signs prior to removing manhole covers where accessible by vehicular or pedestrian traffic.
7. Do not use a metal ladder within 50 feet of electrical power lines.
8. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
9. Do not stand on sinks, toilets or cabinets; use a stepladder.
10. Stand clear of floor openings if guardrails or covers are removed or displaced.
11. 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.
12. Seek first aid immediately if bitten or stung by wasps or bees.
13. Do not handle caterpillars or other insects with your bare hands.

SHEET METAL AND SIDING PERSONNEL

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.

6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Materials Handling

1. Do not attempt to catch falling materials.
2. Do not try to kick objects out your pathway; push or carry them out of the way.
3. Do not jump from elevated places such as truck beds, platforms or ladders.
4. Wear protective gloves when building boxes for packaging.
5. When manually stocking shelves, position the materials to be shelved slightly in front of you so you do not have to twist when lifting and stacking materials.
6. Place items on shelves so they lie flat and do not lean against each other.
7. Place heavier loads on lower or middle shelves.
8. Do not let items overhang from shelves into walkways.
9. Remove one object at a time from a shelf.

General Job Site Rules

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. Erect protective barriers or guards and warning signs prior to removing manhole covers where accessible by vehicular or pedestrian traffic.
7. Do not use a metal ladder within 50 feet of electrical power lines.
8. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
9. Do not stand on sinks, toilets or cabinets; use a stepladder.
10. Stand clear of floor openings if guardrails or covers are removed or displaced.

11. 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.
12. Seek first aid immediately if bitten or stung by wasps or bees.
13. Do not handle caterpillars or other insects with your bare hands.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign “Detour.”
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.

10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Stampers

1. Keep your fingers away from the stamper when making imprints.
2. Use a holder, not your fingers, to hold a stamper.

Punches

1. Do not use a punch that has a dull blade.
2. Keep the cutting edge of the punch sharp.
3. Do not use punches that have mushroomed heads.
4. Do not use punches that are bent, cracked or chipped.

Riveting, Stapling, Nailing

1. Do not throw material from one person to another. Use tag lines and a basket to hoist bolts, washers, drift pins, and tools.
2. Do not use your hands to guide a bit into place when riveting or bolting siding or sheet metal.
3. Do not carry nuts, bolts, rivets or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.
4. Use a receptacle or a net to catch rivets or bolts that are knocked off or backed out from your work area.
5. Wear impact resistant safety goggles when operating pneumatic tools.
6. Wear safety goggles while riveting.

Metal Shears

1. Do not operate foot- or power-operated shears if the knife head guard is missing.

Hammers

2. Use a claw hammer for pulling nails.
3. Do not strike nails or other objects with the cheek of the 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 or a pry bar.

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

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

Powder Actuated Tools

1. Wear impact-resistant safety goggles or face shields when operating any powder-actuated tools.
2. When using powder-actuated tools, do not drive fasteners into structural steel without first looking to see if the steel is backed by a steel plate or barricade, and to see if all personnel are away from the direct line of fire.
3. Do not attempt to fasten through a pre-drilled hole unless the powder-actuated tool has a hole locator.
4. Keep your head and body behind the powder-actuated tool when firing it.
5. Do not fasten steel beams at a distance closer than ½-inch from the edge of the steel.
6. Before using powder-actuated tools do not alter, bypass, or remove the shield or guard at the muzzle end of the powder-actuated tool.
7. Do not load a powder-actuated tool until you are ready to fire it.

Hydraulic/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 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.

4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on 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.

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 whenever 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.

Abrasive Wheels

1. Wear eye protection provided by your supervisor.
2. Do not use abrasive wheels if there is excessive vibration, deep gouges, or cracks in the wheel.
3. Keep tool rests to a maximum distance of 1/8" from the wheel to prevent the work from being caught between the wheel and the tool rest.
4. Do not force work against a cold wheel, but apply pressure gradually giving the wheel an opportunity to warm up.
5. Do not grind on the flat side of the wheel.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toe board or planking.

11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

Lifting Equipment (Chains, Cables, Ropes, Slings)

1. Do not use chain slings if links are cracked, twisted, stretched or bent.
2. Do not use a kinked chain.
3. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
4. Do not place your hands between the sling and its load when the sling is being tightened around the load.
5. Lift the load from the center of hooks, not from the point.

Vehicular Safety (Trucks and All Terrain Vehicles).

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 should 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.

Vehicle Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county’s reporting and clean up procedure.

6. Always stay in attendance when truck is being refueled.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Vehicle/Trailer Safety

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

Heat Exhaustion/Sun Exposure

1. 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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.

14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

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" may be used where water is not readily available.

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
3. (MSDS) for each chemical product used in your workplace.
4. 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.
5. Do not use chemicals from unlabeled containers and unmarked cylinders.
6. Do not perform "hot work" such as welding, metal grinding or other spark producing operations within 50 feet of containers labeled "Flammable" or "Combustible."
7. Do not drag containers labeled "Flammable."
8. Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic."
9. 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.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 1791 STEEL ERECTION

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Work Clothing

1. Do not wear long-sleeve shirts that do not have button-down cuffs.
2. Wear close-fitting pants with the cuffs tucked into your boots or tied off.

Lifting Best practice guidelines

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 should 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 a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Powder Actuated Tools

1. Wear impact-resistant safety goggles or face shields when operating any powder-actuated tools.
2. When using powder-actuated tools, do not drive fasteners into structural steel without first looking to see if the steel is backed by a steel plate or barricade, and to see if all personnel are away from the direct line of fire.
3. Do not attempt to fasten through a pre-drilled hole unless the powder-actuated tool has a hole locator.
4. Keep your head and body behind the powder-actuated tool when firing it.
5. Do not fasten steel beams at a distance closer than ½-inch from the edge of the steel.
6. Before using powder-actuated tools do not alter, bypass, or remove the shield or guard at the muzzle end of the powder-actuated tool.
7. Do not load a powder-actuated tool until you are ready to fire it.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.

4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on 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.

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 whenever 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.

Job Site Traffic Control

1. Do not work outside of the barricaded work area.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.

5. Use the cribbing mats when operating the crane on “soft” ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer’s approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. “Trial Lift” the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Materials Handling

1. Do not attempt to catch falling materials.
2. Do not try to kick objects out your pathway; push or carry them out of the way.
3. Do not jump from elevated places such as truck beds, platforms or ladders.
4. Wear protective gloves when building boxes for packaging.
5. When manually stocking shelves, position the materials to be shelved slightly in front of you so you do not have to twist when lifting and stacking materials.
6. Place items on shelves so they lie flat and do not lean against each other.
7. Place heavier loads on lower or middle shelves.
8. Do not let items overhang from shelves into walkways.
9. Remove one object at a time from a shelf.

Flooring

1. Do not start to work on tiered buildings until the floor has been planked or decked over its entire surface, except for access openings.
2. Do not erect temporary flooring above protruding re-bar needles.

Steel Assembly and Connecting

1. Do not guy columns, trusses or beams unless they have been tied.
2. Do not work over an exposed vertical-reinforcing rod unless the end has been bent out.
3. Do not touch a wire rope when it is being pulled, extended or withdrawn.
4. Do not place fingers next to blocks or sheaves.

Riveting and Bolting

1. Do not use your hands to guide a bit into place when riveting or bolting steel.
2. Disconnect the snap and plunger from an air hammer when it is not in use.
3. Do not pass air-powered tools by the hose from one worker to another.
4. Do not throw material from one person to another. Use tag lines and a basket to hoist bolts, washers, drift pins, and tools.

5. Use a receptacle or a net to catch rivets or bolts that are knocked off or backed out from your work area.
6. Do not carry nuts, bolts, rivets, or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.

Safety Around Open Water

1. Do not work on floats unless they have the “U.S. Coast Guard Approved” emblem tagged on the float.
2. Wear life vests that have “U.S. Coast Guard Approved” insignia tagged on the vest when working around open water.
3. Do not jump from barges to docks.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled “Oily Rags Only.” Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop-rags.
17. Store liquid containers labeled “Flammable” only in cabinets, rooms or buildings labeled “Flammable Storage.”

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 1794 EXCAVATION WORK

JOB SITE PERSONNEL

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 should be worn by traffic flag workers who are assigned to controlling traffic.
3. Do not walk under platforms that bridge a trench.
4. Do not enter a trench unless you have been given permission by the “competent person.” Seek out and identify the designated “competent person” for the excavation site.

Lifting Best practice guidelines

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 should 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 a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

Access and Egress Safety

1. Use ladders, structural ramps, or stairways as a means of access or egress from excavations.
2. Do not use scrap lumber, excavation machinery, or other improvised devices for climbing.
3. Do not climb a ladder unless it extends at least 3 feet or three rungs beyond the edge of the trench.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on "soft" ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer's approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Backhoe/Power Shovel Operations

1. Do not operate backhoes, power shovels and other heavy equipment within 2 feet from the edge of the excavation.
2. Do not use a bucket or other attachments for a staging or temporary platform for workers.
3. 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.

Trench Box Safety

1. Do not enter a trench box during its installation or removal.
2. Do not enter a trench box that is being moved.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 2499 WOOD PRODUCTS, GENERAL

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

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, stable, mobile, swivels and allows operator movement.
3. Adjust your seat height so your knees are about the same level as your hips.
4. Sit straight up in your chair. Where needed, use a footrest that has an adjustable height and is large enough to allow operator movement.
5. Adjust your computer screen and keyboard so they are directly in front of you.
6. Place the keyboard low enough so operator is not required to reach up or out to the keys.
7. Keep wrists and hands in a straight position while key stroking by keeping forearms parallel to the floor and elbows at your sides.
8. Select low frequency vibratory tools and tools that bend at the handle.
9. Select tools by weight for the task to distribute pressure evenly over the hand, to fit your hand size, and to provide a handle that accommodates a relaxed grip position.

PRODUCTION PERSONNEL

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Confined Space

1. Do not perform confined-space operations until you have received initial indoctrination and training on the county’s permit space program, regarding your duties and responsibilities.
2. If respirators are required, do not perform any operations until trained in the specifics of the respirator protection program.
3. Obtain a confined-space entry permit from your supervisor before entering the space.

4. Lock and tag “OUT OF SERVICE” all impellers, agitators, pumps or any other equipment in the tank before entering the confined space.
5. Open all manholes to the space for ventilation.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the “On” position.
7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.
14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the “Off” position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled “Reduces Pressure to 30 psi” to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.

5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the “Off” position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.

25. 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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Handling Chemicals

1. Do not use gasoline for cleaning parts.
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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons and protective eyewear, when using chemicals labeled "Flammable," "Corrosive," "Caustic" or "Poisonous."
4. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible damage.
5. 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.
6. Do not drag containers labeled "Flammable."

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Spray 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 before disconnecting them.

3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled “Flammable” or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.
6. Return containers of thinners, mineral spirits and other liquids labeled “Flammable” to the storage cabinet labeled “Flammable Storage,” when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the “On” position to operate the mechanical ventilation system before and during all spraying operations.

Respirators

1. Use the respirator provided by your supervisor for your assigned duties.
2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
3. Do not wear contact lenses when wearing a respirator.
4. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
5. Only use the respirator that has been issued to you.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.

11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

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.

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 whenever 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.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.

- c. The forks are unequally spaced or cracks exist along the blade or at the heels.
- d. Hydraulic fluid levels are low.
- e. The hydraulic lines and fittings have excessive wear or are crimped.
- f. Fluid is leaking from the lift or the tilt cylinders.
- g. The hardware on the cylinders is loose.
- h. The tires are excessively worn or split, or have missing tire material.
- i. Air-filled tires are not filled to the operating pressure indicated on the tire.
- j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.

3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.

2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.
6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.

5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the “On” position before operating the battery charger.

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 Safety

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

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 2851 PAINTS, VARNISHES

RECEIVERS AND STORAGE FACILITY EMPLOYEES

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled “Flammable.”
12. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

MIXERS AND GRINDERS

General

1. When cleaning the tanks or mixers, wear an apron, rubber gloves, and eye protection. When cleaning tanks that have contained solvent based paints, wear the above mentioned items and a respirator (as prescribed by the employer's procedure for cleaning tanks and mixers).
2. When pouring powdered materials into the mixing tank, use the respirator required for handling these substances.
3. Lockout and tagout the motor on the mixer before cleaning or removing the mixer or grinding blade.
4. Use the "Lifting Procedure" when handling bags of raw materials.

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. Store knives in knife blocks or in sheaths after using them.

4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

FILLING/PACKING/CANNING OPERATORS

General

1. When moving boxes (e.g. from the conveyor, pallet jacks, pallets, racks, etc.), place and keep the objects (on the work surface) within arms reach.
2. When possible, raise or lower the pallet, cart, or any other adjustable working surfaces to prevent bending.
3. When passing a box to another employee, make sure the other employee has a firm grip on the box. Ask the employee to verbally confirm he/she has control of the box.
4. When handling boxes, do not “rush” or make any sudden or rapid movements.
5. Take the allowed rest breaks (e.g. morning, afternoon, lunch) to allow relieve physical stress. In addition, whenever possible, during work or breaks, do simple stretching exercises.
6. Use “Lifting Best practice guidelines.”

MAINTENANCE PERSONNEL

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

11. Do not use a screwdriver to test the charge of a circuit.

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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.

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 whenever 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.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.

2. Turn the valve on the torch clockwise to turn “Off” the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 2951 ASPHALT PAVING MIXTURES

General Rules

1. Wear your hard hats, work boots, and safety glasses at all times while you are working in the plant.
2. Do not wear loose clothing and dangling jewelry while you are working in the plant.
3. Immediately clean up all oil, water and grease spills.
4. Follow all additional safety instructions, warnings, signs, best practice guidelines and rules as written, posted, or communicated.

Maintenance Crew

1. Wear your Asbestos-Free High Temperature Gloves when making repairs to hot equipment.
2. Turn the power switch of the equipment that is to be repaired to "Off," and apply locks and tags to the equipment breaker switches, before beginning repairs on that item of equipment. The repair person should keep the keys throughout the entire repair operation.
3. Use the soap solution provided to wash the Pug Mill; do not use any cleaning oil. A fire can be started with the hot aggregate and the oil residue which may have been left after cleaning.
4. Wear your dust masks while working on or performing maintenance on the bag house.
5. When repairing or inspecting asphalt tanks and containers, bring a fire extinguisher with you to the repair location so that it can be on the spot (within 24 inches of reach) for easy access.

Crusher Operator and Cold Feed Operator

1. Do not remove or alter any safety guards on conveyors, shafting, gears, couplings pulleys or any other moving machinery .
2. Wear your ear plugs and dust masks at all times while working on the crusher or cold feed machines.

Laboratory Safety

1. Turn on local exhaust ventilation before starting any procedure.
2. Separate all toxic substances in a well-identified area with local exhaust ventilation.
3. Avoid skin contact with all chemicals. Do not smell or taste chemicals.
4. Do not store chemicals on bench tops. Store only small amounts in the laboratory at anytime. Do not store chemicals near heat source or direct sunlight.
5. Inspect and test the emergency eyewash fountain, drench showers and fire extinguishers every month.
6. Keep the work area clean and uncluttered of chemicals and equipment. Clean up the work area on completion of an operation.
7. Do not eat, drink, smoke, chew gum, or apply cosmetics in areas where laboratory chemicals are present.

8. Do not store food or beverages in laboratory storage areas or refrigerators.
9. Do not use mouth suction for pipeting or starting a siphon.
10. Confine long hair and loose clothing. Wear shoes at all times, but do not wear sandals, perforated shoes, or sneakers in the laboratory.
11. Remove all protective clothing or equipment before leaving the laboratory. Place it in the appropriately labeled container.

Truck Drivers

1. Only truck drivers are allowed to operate the trucks.
2. If the truck is stuck in dirt, sand or mud, do not allow another vehicle to push the truck; dismount the vehicle and find the tow truck operator to pull the truck out.
3. Remain in the cab of the truck throughout the entire loading operation (especially when loading from silos).
4. Do not use diesel fuel or any other cleaning oils to wash the truck beds; use the soap solution provided for this purpose.

Front End Loader Operator

1. Do not use a bucket or attachment for a working platform or personnel carrier.
2. Only the front end loader operator is allowed to operate the front end loader.
3. Do not carry passengers on the front end loader.
4. To avoid "tipping," do not exceed the manufacturer's load rated capacity posted on the arm of the front end loader.
5. Do not lift the front end loader bucket over another person.
6. Never leave the front end loader unattended while the motor is running.
7. Operate the loader from the seat. Do not operate the loader from outside the cab.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3084 PLASTIC PIPE

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

PIPE MANUFACTURING PERSONNEL

General Rules

1. Obey all safety and danger signs posted in the workplace.
2. Do not work alone in the manufacturing area.
3. Do not smoke, drink or eat in the manufacturing area.
4. Do not smoke while handling chemicals labeled “Flammable.”
5. After leaving the manufacturing area wash hands and exposed skin surfaces of arms.
6. Do not run on stairs or take more than one step at a time.
7. Do not jump from elevated places such as truck beds, platforms or ladders.

Handling Chemicals

1. Do not use gasoline for cleaning parts.
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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons and protective eyewear, when using chemicals labeled “Flammable,” “Corrosive,” “Caustic” or “Poisonous.”
4. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible damage.
5. 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.
6. Do not drag containers labeled “Flammable.”

Work Clothing and Personal Protective Equipment

1. Wear the face shield over your goggles or safety glasses during open furnace, welding, soldering or gas cutting operations.
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 the welding helmet or welding goggles during welding operations.
4. Wear the dielectric gloves when working on electric current.
5. Wear your earplugs or earmuffs in areas posted “Hearing Protection Required.”
6. Safety goggles should be worn while welding or cutting metal.
7. Do not wear long sleeve shirts that do not have button-down cuffs.
8. Do not wear jewelry or coats with metal zippers to work.

PIPE MANUFACTURING PERSONNEL

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.

5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the "Off" or "Safe" position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.

- e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Pipe Extrusion Operations

1. Do not leave the extruder unattended while it is in use.
2. Do not adjust when the machine is in operation.
3. Keep your hands away from the point of operation.
4. Do not touch any moving parts of the extruder while it is in operation.
5. Give the verbal “All Clear” command before starting or re-starting the extruder.

Table Saws and Pop-Up Saws

1. Set the saw blade high enough to cut the stock and no higher.
2. Do not use the table saw to cut long work pieces unless a coworker is standing at the output end of the table saw to catch long work pieces as they leave the saw.
3. Do not use a table saw blade or cutting head that has missing teeth or is cracked.
4. Keep your hand out of the line of the cut when feeding the work piece into the table saw.
5. Use the push stick to guide the stock when there is not enough room for hand movement between the rip fence and the table saw blade.
6. Use anti-kickback “dog fingers” when a work piece is being ripped.
7. Use the spreader when ripping to prevent the wood from immediately coming back together and binding the blade.
8. Position the spreader directly in line with the blade.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.

11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Plastics Trimming and Cutting

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. Store knives in knife blocks or in sheaths after use.
4. Do not use knives with broken or loose handles.
5. Do not pick up knives by their blades.
6. Carry knives with their tips pointed towards the floor.

MATERIALS HANDLING/WAREHOUSE PERSONNEL

General Housekeeping

18. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
19. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
20. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
21. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
22. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
23. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
24. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
25. Keep power cords away from path of vacuum cleaners and floor polishers.
26. Keep doors fully open or fully closed.
27. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
28. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
29. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
30. Straighten or remove rugs and mats that do not lie flat on the floor.
31. Return tools to their storage places after use.
32. Dispose of trash only in trash receptacles.
33. Dispose of oily rags in the container labeled “Oily Rags Only.” Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop-rags.

34. Store liquid containers labeled “Flammable” only in cabinets, rooms or buildings labeled “Flammable Storage.”

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Handling Chemicals

1. Do not use gasoline for cleaning parts.
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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons and protective eyewear, when using chemicals labeled “Flammable,” “Corrosive,” “Caustic” or “Poisonous.”
4. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible damage.
5. 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.
6. Do not drag containers labeled “Flammable.”

Stocking Shelves

1. When manually stocking shelves, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Do not let items overhang from shelves into walkways.
3. Place heavier merchandise on the lower or middle shelves.
4. Remove one object at a time from shelves.
5. Place items on shelves so they lie flat and do not lean against each other.

Conveyor Operation (Recycling/Sorting Area)

1. Never attempt to repair or adjust a moving conveyor.
2. Do not operate a conveyor unless all machine guards are in place.
3. Never take a “short cut” by walking across a moving conveyor.
4. Do not work on or around a moving conveyor when you are wearing jewelry or loose-fitting clothing.
5. Never obstruct the area around an “emergency stop” button, or hang anything on the button.
6. Before starting or restarting a conveyor, give a verbal command such as “move away from machine.”

7. Wear your gloves and safety glasses when engaged in the sorting operation.
8. Do not use gloves that are torn, cut or punctured.
9. Wear your earplugs or earmuffs in areas posted "Hearing Protection Required."
10. Long hair should be contained under a hat or net, regardless of gender.
11. Do not pick up broken glass with your bare hands; always wear protective gloves.

Packaging/Unpackaging

1. Wear your protective gloves and eye protection when banding pipes for shipment.
2. When using a tape dispenser to attach shipping labels, direct the cutting edge away from your body.
3. Slide all containerized packages or use hand trucks, pallet jack or other lifting aids.
4. Remove or bend nails and staples from crates before unpacking the crates.

Supplying Feedstock or Resins To Vacuum Loaders

1. Do not remove, alter or bypass any safety guards or devices on the vacuum loader.
2. Do not wear loose clothing or jewelry in the machine shop.
3. Long hair should be contained under a hat or hair net, regardless of gender.
4. Read and obey safety warnings posted on or near any machinery.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.

4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.

- j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.

2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

MAINTENANCE PERSONNEL

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Lockout/Tagout

6. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
7. Place the breaker or switch in the "Off" or "Safe" position.
8. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
9. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
10. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.

3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on 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.

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 whenever 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.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled "Reduces Pressure to 30 psi" to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the "Off" position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Handling Chemicals

1. Do not use gasoline for cleaning parts.
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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons and protective eyewear, when using chemicals labeled "Flammable," "Corrosive," "Caustic" or "Poisonous."
4. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible damage.
5. 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.
6. Do not drag containers labeled "Flammable."

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3271 CONCRETE BLOCK AND BRICK

Confined Space

1. Do not perform confined-space operations until you have received initial indoctrination and training on the county's permit space program, regarding your duties and responsibilities.
2. If respirators are required, do not perform any operations until trained in the specifics of the respirator protection program.
3. Obtain a confined-space entry permit from your supervisor before entering the space.
4. Lock and tag "OUT OF SERVICE" all impellers, agitators, pumps or any other equipment in the tank before entering the confined space.
5. Open all manholes to the space for ventilation.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.

22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled “Reduces Pressure to 30 psi” to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the “Off” position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.

14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.

7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Respirators

1. Use the respirator provided by your supervisor for your assigned duties.
2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
3. Do not wear contact lenses when wearing a respirator.
4. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
5. Only use the respirator that has been issued to you.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled “Oily Rags Only.” Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop-rags.
17. Store liquid containers labeled “Flammable” only in cabinets, rooms or buildings labeled “Flammable Storage.”

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.

3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign “Detour.”
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Lifting Best practice guidelines

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 should 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 a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.

3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Machine/Equipment Safety Augers

1. Do not put hand or object into the inspection port at any time.

Autoclave

1. Only employer-authorized personnel may operate an autoclave.
2. Do not force door or the locking device into position.
3. Do not operate autoclave without proper engagement of the safety interlock.

Block Grinders

1. When operating a block grinder wear safety goggles, safety shoes, hearing protection and a particle respirator.
2. Do not wear loose fitting clothing when operating grinders.
3. When feeding blocks onto the chain drive, keep hands away from block hold-down guide.
4. Do not operate grinder without dust collecting equipment in operation.

Block Machines

1. Do not make adjustments on a machine while it is in automatic or in motion. (Follow LOCKOUT/TAGOUT best practice guidelines).
2. Turn the power off or take out of automatic to clear any malfunction. (Follow LOCKOUT/TAGOUT best practice guidelines).
3. Turn off the master control valve on hydraulic machines before attempting to change molds. (Follow LOCKOUT/TAGOUT best practice guidelines).
4. Use two workers when changing molds or performing maintenance.
5. (Follow LOCKOUT/TAGOUT best practice guidelines).
6. Do not turn on main or panel disconnects without first closing doors on the electrical boxes or panels. (Follow LOCKOUT/TAGOUT best practice guidelines).

7. Block or chain the stripper head frame in the up position before reaching under the stripper head. (Follow LOCKOUT/TAGOUT best practice guidelines).
8. Before machines are started, remove tools, bars and etc. from machines or mixer. (Follow LOCKOUT/TAGOUT best practice guidelines).

Conveyors

1. Only conveyor-belt operators may operate the electric conveyor belts.
2. Do not jump onto, climb over, or ride on the conveyor.
3. Do not remove, alter, or bypass safety guards or devices when operating a conveyor belt.
4. Do not try to stop a work piece as it goes along the conveyor belt. If the machine gets jammed, turn the power switch to the "Off" position before clearing the jam.
5. Replace the guards before starting the conveyor and after making adjustments or repairs.

Rack Conveyer

1. Keep your hands away from the conveyer while it is in motion.
2. Do not cross or climb on a rack conveyer.
3. Do not step between rack and loader/unloader.
4. Do not stand in front of rack conveyer while loader is in operation.

Cuber

1. Do not reach into a cuber until the safety hooks are in place.
2. When operating cuber, stand in the area identified by the manufacturer. Do not operate cuber from any other area.
3. Do not step up onto cube rolls or midget rolls.
4. Do not operate cuber unless all guards are in place.

Depalleters or Pushers

1. Do not remove blocks from pallet inside the depalleting area.
2. Do not manually actuate depalleter switch inside the depalleting area.
3. Keep hands and arms out of pushing area.
4. When working on depalleter or pusher equipment, turn off the main electrical panel and lock it out. (Follow LOCKOUT/TAGOUT best practice guidelines).
5. When operating the depalleter or pusher equipment, wear safety glasses, safety shoes, hearing protection and hard hat.
6. Do not exceed the rated capacity of the depalleter or pusher machine.

Hoists

1. Do not use a hoist whose safety latch on the hook has been removed, is bent, or is otherwise visibly damaged.
2. Do not use load hooks that are cracked, bent or broken.
3. Read the capacity plate on the central panel box. Do not exceed the rated load capacity as specified by the manufacturer.
4. Do not leave the hoist unattended with a suspended load.
5. Do not hoist loads over people.
6. Do not use chain slings if links are cracked, twisted, stretched or bent.
7. Do not shorten slings by using makeshift devices such as knots or bolts.

8. Do not use a kinked chain.
9. Do not place your hands between the sling and its load when the sling is being tightened around the load.
10. Do not alter or remove the safety latch on a hook. Do not use a hook that does not have a safety latch, or if the safety latch is bent.
11. Lift the load from the bowl of the hook, not from the point.

Overhead Hoists

1. Do not load overhead hoist beyond the rated capacity.
2. Secure and balance load before lifting.
3. Do not overload hooks.

Skip Hoists

1. Do not enter skip pit until safety stops are in place.
2. Lock or block skip bucket in the raised position for cleaning the skip bucket pit.

Loader/Unloader

1. Do not operate loader or unloader equipment unless all guards are in place.
2. Do not walk under elevators.
3. Do not reach into elevators.
4. Do not crawl over a moving conveyer.
5. Do not perform any maintenance on the loader or unloader equipment in the automatic position.
6. Do not permit unauthorized personnel around loader or unloader equipment while it is in operation.

Material Elevators

1. Only employer-authorized personnel may operate elevators.
2. Do not operate the elevator unless all gates and guards are in place.
3. Do not stick tools in inspection port or receiving hopper while the elevator is in operation.

Mixers

1. Do not operate the mixer unless a safety grid is over the mixer and guards are over the belt and gears.
2. When cleaning or performing maintenance inside the mixer, pull the motor starter and "LOCK" in the "OFF" position and keep the key in your pocket. (Follow LOCKOUT/TAGOUT and Confined Space Entry Best practice guidelines.)
3. Do not use an iron or steel hammer on hardened metal parts, such as molds or mixer parts. Use lead or brass hammers.
4. Do not reach into the mixer while it is in motion.
5. Before starting a mixing machine, remove all tools, bars, etc., on the machine or in the mixer.

Oilers/Cleaners

1. Do not remove jammed pallets while cleaner/oiler is in operation.

Splitters

1. Put the splitter in the manual position when making adjustments.
2. When operating the splitter automatically, stand in the manufacturer's identified position.
3. When the splitter is not in operation, pull the connecting power or the stationary switch and lock in the upright position.

Strappers

1. If entrance to strapper machine is required for servicing, such as cleaning or greasing, place the main disconnect switch to the "Off" position and padlock until service is completed. Close the main air valve and bleed off all air pressure. Before entering the product passage area, consult the strapper manual and safety best practice guidelines required to ensure no cube should be discharged while service is being performed. (Follow LOCKOUT/TAGOUT best practice guidelines).
2. Do not ride on conveyer rollers.
3. Do not turn the strapper power switch to the "On" position until all guards are in place.

Transfer Cars

1. Do not operate the transfer car equipment until all guards are in place.
2. Place the transfer car in the manual mode when performing maintenance work. (Follow LOCKOUT/TAGOUT best practice guidelines).

Turnovers

1. Place the switch of the turnover in the manual position before changing the pads or the tips.
2. Replace all guards after repairs, before returning the turnover to the automatic position.
3. Warn and clear all personnel of turnover equipment before starting the equipment.
4. When working on turnover equipment, turn main power source to the "off" position. Follow LOCKOUT/TAGOUT best practice guidelines.
5. Wear your safety glasses, safety shoes, hearing protection and hard hat when operating turnovers.
6. Do not exceed the rated capacity of the turnover machine.

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.

11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to “off” and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

Vehicle Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county’s reporting and clean up procedure.
6. Always stay in attendance when truck is being refueled.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.

9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Truck Drivers

1. Only truck drivers are allowed to operate the trucks.
2. If the truck is stuck in dirt, sand or mud, do not allow another vehicle to push the truck; dismount the vehicle and find the tow truck operator to pull the truck out.
3. Remain in the cab of the truck throughout the entire loading operation (especially when loading from silos).
4. Do not use diesel fuel or any other cleaning oils to wash the truck beds; use the soap solution provided for this purpose.

Boom Unloaders

1. Fully extend outriggers before attempting a lift.
2. Do not operate a boom unloader on soft ground without cribbing or mats.
3. Do not operate boom unloader with boom closer than ten feet to power lines.
4. Rotate the boom with the load as close in to the pedestal as possible. When the blocks clear the bed of the truck, lower the blocks as close to the ground as possible (two-three feet.)
5. Do not put cubes of block on scaffolding or above ground level.
6. Inspect cables daily for wear, replace if starting to fray.
7. Unload off the rear end of the truck first.
8. Do not stand under a cube of blocks that is being unloaded.
9. Do not have power take-offs engaged while loading trucks or when leaving control box unattended.
10. Do not operate another person's boom in the yard or on the job site without the driver's permission.
11. Do not unload block if your (the operator's) view is obstructed, e.g., wall or hedges.

Straddle Unloaders

1. Secure unloader with hold-down provided, before moving the truck.
2. Do not use bent or cracked unloader pipes.
3. Select an unloading area with firm ground for deploying the stabilizers.
4. Do not lift a load that is over the rated capacity of the unloader.
5. Do not jerk unloader when it is in motion.
6. Keep hands off rails while loader is in motion.
7. Secure rail extensions after unloading.

Pups-Trailers

1. Inspect unit to ensure lights, tires, safety chain, air hook-ups and mud flaps are operational.
2. Make hook-ups and check that the locking device is engaged before moving.
3. If trailer has adjustable tongue, check that the locking device is engaged before moving the trailer.
4. Use wheel chocks on the trailers when disconnecting them from trucks.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.

5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.

14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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.

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 whenever 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.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3272 CONCRETE PRODUCTS, EXCEPT BLOCK AND BRICK

Confined Space

1. Do not perform confined-space operations until you have received initial indoctrination and training on the county's permit space program, regarding your duties and responsibilities.
2. If respirators are required, do not perform any operations until trained in the specifics of the respirator protection program.
3. Obtain a confined-space entry permit from your supervisor before entering the space.
4. Lock and tag "OUT OF SERVICE" all impellers, agitators, pumps or any other equipment in the tank before entering the confined space.
5. Open all manholes to the space for ventilation.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.

22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable*, *Corrosive*, *Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:

- i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Respirators

1. Use the respirator provided by your supervisor for your assigned duties.
2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
3. Do not wear contact lenses when wearing a respirator.
4. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
5. Only use the respirator that has been issued to you.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.

3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.

14. Do not move a rolling ladder while someone is on it.

Lifting Best practice guidelines

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 should 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 a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.

- d. All employees are clear of equipment.

Augers

1. Do not put hand or object into inspection port at any time.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Automatic Casting Machines

1. Do not make adjustments on a machine while it is in automatic or in motion. (Follow LOCKOUT/TAGOUT best practice guidelines).
2. Turn the power off or take out of automatic to clear any malfunction. (Follow LOCKOUT/TAGOUT best practice guidelines).
3. On hydraulic machines, turn off the master control valve before attempting to change molds. (Follow LOCKOUT/TAGOUT best practice guidelines).
4. Use two workers when changing molds or performing maintenance.
5. (Follow LOCKOUT/TAGOUT best practice guidelines).
6. Do not throw on main or panel disconnects without first closing doors on the electrical boxes or panels. (Follow LOCKOUT/TAGOUT best practice guidelines).
7. Block or chain the stripper head frame in the up position before reaching under the stripper head. (Follow LOCKOUT/TAGOUT best practice guidelines).
8. Before machines are started, remove tools, bars, etc., from machines or mixer. (Follow LOCKOUT/TAGOUT best practice guidelines).

Conveyors

1. Only conveyor-belt operators may operate the electric conveyor belts.
2. Do not jump onto, climb over, or ride on the conveyor.
3. Do not remove, alter, or bypass safety guards or devices when operating a conveyor belt.
4. Do not try to stop a work piece as it goes along the conveyor belt. If the machine gets jammed, turn the power switch to the "Off" position before clearing the jam.
5. Replace the guards before starting the conveyor and after making adjustments or repairs.

Rack Conveyor

1. Keep your hands away from the conveyor while it is in motion.
2. Do not cross or climb on a rack conveyor.

3. Do not step between rack and loader/unloader.
4. Do not stand in front of rack conveyer while loader is in operation.

Palleters or Pushers

1. Do not remove blocks from pallet inside the palleting area.
2. Do not manually actuate palleting switch inside the palleting area.
3. Keep hands and arms out of pushing area.
4. When working on palleting or pusher equipment, turn off main electrical panel and lock it out. (Follow LOCKOUT/TAGOUT best practice guidelines).
5. When operating the palleting or pusher equipment, wear safety glasses, safety shoes, hearing protection and hardhat.
6. Do not exceed the rated capacity of the palleter or pusher machine.

Rigging

1. Only authorized personnel should perform rigging operations.
2. Inspect rigging gear daily for kinks, frays, cracks, etc. If damaged or worn, take out of service.
3. Do not use hooks unless safety latches are installed and operational.
4. Do not use chain slings if links are cracked, twisted, stretched or bent.
5. Do not shorten slings by using makeshift devices such as knots or bolts.
6. Protect slings from sharp edges of their loads by placing pads over the sharp edges of the items to be handled.
7. Do not place your hands between the sling and the load when the sling is being tightened around the load.
8. Wear work gloves when handling rough, sharp-edged or abrasive material such as chains, cables, ropes or slings.
9. Lift the load from the center or throat of the hook, not from the point.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on "soft" ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer's approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.

16. “Trial Lift” the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Hoists

1. Do not use a hoist whose safety latch on the hook has been removed, is bent, or is otherwise visibly damaged.
2. Do not use load hooks that are cracked, bent or broken.
3. Read the capacity plate on the central panel box. Do not exceed the rated load capacity as specified by the manufacturer.
4. Do not leave the hoist unattended with a suspended load.
5. Do not hoist loads over people.
6. Do not use chain slings if links are cracked, twisted, stretched or bent.
7. Do not shorten slings by using makeshift devices such as knots or bolts.
8. Do not use a kinked chain.
9. Do not place your hands between the sling and its load when the sling is being tightened around the load.
10. Do not alter or remove the safety latch on a hook. Do not use a hook that does not have a safety latch, or if the safety latch is bent.
11. Lift the load from the bowl of the hook, not from the point.

Overhead Hoists

1. Do not load overhead hoist beyond the rated capacity.
2. Secure and balance load before lifting.

Skip Hoists

1. Do not enter skip pit until safety stops are in place.
2. Lock or block skip bucket in the raised position for cleaning the skip bucket pit.

Loader/Unloader

1. Do not operate loader or unloader equipment unless all guards are in place.
2. Do not walk under elevators.
3. Do not reach into elevators.
4. Do not crawl over a moving conveyer.
5. Do not perform any maintenance on the loader or unloader equipment in the automatic position.
6. Do not permit unauthorized personnel around loader or unloader equipment while it is in operation.

Material Elevators

1. Only employer-authorized personnel may operate elevators.
2. Do not operate the elevator unless all gates and guards are in place.
3. Do not stick tools in inspection port or receiving hopper while the elevator is in operation.

Mixers

1. Do not operate the mixer unless a safety grid is over the mixer and guards are over the belt and gears.
2. When cleaning or performing maintenance inside the mixer, pull the motor starter and “LOCK” in the “Off” position and keep the key in your pocket. (Follow LOCKOUT/TAGOUT and Confined Space Entry Best practice guidelines.)
3. Do not use an iron or steel hammer on hardened metal parts, such as molds or mixer parts. Use lead or brass hammers.
4. Do not reach into mixer with your hands while the mixer is operating.
5. Before starting a mixer machine, remove all tools, bars, etc., on the machine or in the mixer.

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to “off” and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.

29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled “Reduces Pressure to 30 psi” to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the “Off” position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Sand Blasting Safety

1. Only blasters may use blasting equipment.
2. 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.
3. Do not use compressed air to clean equipment or yourself.

Prestressed Concrete

Pretensioning Operations

1. Clean, inspect and lubricate strand chucks between each use.
2. Do not use any worn or distorted chucks.
3. Check alignment of strand vises. Do not stretch tendon unless vises are in line with pull and are seated properly.
4. Do not begin tensioning if a strand has been nicked or otherwise damaged.
5. Do not begin tensioning any strand with a broken wire.
6. Keep all torches and welding equipment away from the strands.
7. Protect tendons during handling and moving by attaching handling devices to flanges of reels or coils.
8. Set or position all anchorages (strand vises and anchor plates) perpendicular to the tendons.

Tensioning Operations

1. Prior to tensioning a bed, give a visible and audible signal.
2. Do not begin tensioning operations until all personnel leave the area adjacent to the bed.
3. Position or secure jacks by a means to prevent the jack from flying longitudinally or laterally in event of tendon failure.
4. Do not stand at either end of the bed, directly in line with the tendon being tensioned.

5. Do not stand over tendons being tensioned to make elongation measurements. Measurements should be made by jigs or templates from the side or from behind shields.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Truck Drivers

1. Only truck drivers are allowed to operate the trucks.
2. If the truck is stuck in dirt, sand or mud, do not allow another vehicle to push the truck; dismount the vehicle and find the tow truck operator to pull the truck out.
3. Remain in the cab of the truck throughout the entire loading operation (especially when loading from silos).
4. Do not use diesel fuel or any other cleaning oils to wash the truck beds; use the soap solution provided for this purpose.

Straddle Unloaders

1. Secure unloader with hold-down provided, before moving the truck.
2. Do not use bent or cracked unloader pipes.
3. Select an unloading area with firm ground for deploying the stabilizers.
4. Do not lift a load that is over the rated capacity of the unloader.
5. Do not jerk unloader when it is in motion.
6. Keep hands off rails while loader is in motion.
7. Secure rail extensions after unloading.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.

- i. Air-filled tires are not filled to the operating pressure indicated on the tire.
- j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.

2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the "On" position before operating the battery charger.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.

10. Place items on shelves so that they lie flat and do not wobble.

Hand Truck Safety

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

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.

6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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.

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 whenever 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.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3273 READY MIX CONCRETE

Confined Space

1. Do not perform confined-space operations until you have received initial indoctrination and training on the county's permit space program, regarding your duties and responsibilities.
2. If respirators are required, do not perform any operations until trained in the specifics of the respirator protection program.
3. Obtain a confined-space entry permit from your supervisor before entering the space.
4. Lock and tag "OUT OF SERVICE" all impellers, agitators, pumps or any other equipment in the tank before entering the confined space.
5. Open all manholes to the space for ventilation.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.

23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled "Reduces Pressure to 30 psi" to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the "Off" position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform "hot work," such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled "Flammable" or "Combustible."
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled "Flammable."
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop rags.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Respirators

1. Use the respirator provided by your supervisor for your assigned duties.
2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
3. Do not wear contact lenses when wearing a respirator.
4. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.

5. Only use the respirator that has been issued to you.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.

11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Lifting Best practice guidelines

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 should 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 a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.

- d. All employees are clear of equipment.

Conveyors

1. Only conveyor-belt operators may operate the electric conveyor belts.
2. Do not jump onto, climb over, or ride on the conveyor.
3. Do not remove, alter, or bypass safety guards or devices when operating a conveyor belt.
4. Do not try to stop a work piece as it goes along the conveyor belt. If the machine gets jammed, turn the power switch to the "Off" position before clearing the jam.
5. Replace the guards before starting the conveyor and after making adjustments or repairs.

Rack Conveyor

1. Keep your hands away from the conveyor while it is in motion.
2. Do not cross or climb on a rack conveyor.
3. Do not step between rack and loader/unloader.
4. Do not stand in front of rack conveyor while loader is in operation.

Hoists

1. Do not use a hoist whose safety latch on the hook has been removed, is bent, or is otherwise visibly damaged.
2. Do not use load hooks that are cracked, bent or broken.
3. Read the capacity plate on the central panel box. Do not exceed the rated load capacity as specified by the manufacturer.
4. Do not leave the hoist unattended with a suspended load.
5. Do not hoist loads over people.
6. Do not use chain slings if links are cracked, twisted, stretched or bent.
7. Do not shorten slings by using makeshift devices such as knots or bolts.
8. Do not use a kinked chain.
9. Do not place your hands between the sling and its load when the sling is being tightened around the load.
10. Do not alter or remove the safety latch on a hook. Do not use a hook that does not have a safety latch, or if the safety latch is bent.
11. Lift the load from the bowl of the hook, not from the point.

Overhead Hoists

1. Do not load overhead hoist beyond the rated capacity.
2. Secure and balance load before lifting.

Skip Hoists

1. Do not enter skip pit until safety stops are in place.
2. Lock or block skip bucket in the raised position for cleaning the skip bucket pit.

Loader/Unloader

1. Do not operate loader or unloader equipment unless all guards are in place.
2. Do not walk under elevators.
3. Do not reach into elevators.
4. Do not crawl over a moving conveyor.
5. Do not perform any maintenance on the loader or unloader equipment in the automatic position.

6. Do not permit unauthorized personnel around loader or unloader equipment while it is in operation.

Material Elevators

1. Only employer-authorized personnel may operate elevators.
2. Do not operate the elevator unless all gates and guards are in place.
3. Do not stick tools in inspection port or receiving hopper while the elevator is in operation.

Mixers

1. Do not put your hands inside the mixing bowl while the mixing bowl and mixer are in operation.
2. Use the stomper to push meat through the grinder attachment of a mixer.

Oilers/Cleaners

1. Do not remove jammed pallets while cleaner/oiler is in operation.

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.

27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

Vehicle Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when truck is being refueled.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Truck Drivers

1. Only truck drivers are allowed to operate the trucks.
2. If the truck is stuck in dirt, sand or mud, do not allow another vehicle to push the truck; dismount the vehicle and find the tow truck operator to pull the truck out.
3. Remain in the cab of the truck throughout the entire loading operation (especially when loading from silos).
4. Do not use diesel fuel or any other cleaning oils to wash the truck beds; use the soap solution provided for this purpose.

Prior to Moving Vehicle

1. Look for pedestrians, vehicles or obstacles that may be in your path and proceed with caution to avoid them.
2. Inspect tires for deflation, damage or adhering objects, and if discovered, correct the situation.
3. Look for fluid leaks and take corrective action if any are found.
4. Clean and stow chutes after delivery.

Lifting and Placing Chutes

1. Position your feet squarely before lifting and carrying a chute.

2. Carrying and handling chutes:
 - a. Place hands with fingers around side edge of chute. Hold chute close to body between your waist and shoulder, or
 - b. Position hands on chute same as above, only place chute on shoulder with chute hook in front of you.
 - c. Place and connect chutes with fingers well away from lip edges.
 - d. Lock chutes in place when traveling from one position to another on the job.

Handling Chutes

1. Avoid pinch points in chute pivots.
2. Do not operate the chutes if you have not been trained in the procedure.
3. Do not stand in the path of an unfolding chute.

Stepping Up Or Stepping Down

(Getting in or out of the cab, or on or off of the truck mixer)

1. Use steps that are provided. Use same steps each way--up and down.
2. Face the truck when preparing to enter.
3. Use handholds provided.
4. Watch your footing each time you enter the truck.
5. Follow the same procedure every time you enter or exit the truck.
6. Support your weight by holding onto the truck until you have firm footing on the ground.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. “Square up” and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.

4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.

13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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.

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 whenever 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.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3441 FABRICATED STRUCTURAL METALS

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

CRANE AND HOIST OPERATORS

General Machine Shop Safety

1. Read and obey safety warnings posted on or near any machinery.
2. Long hair should be contained under a hat or hair net, regardless of gender.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Lifting Equipment (Chains, Cables, Ropes, Slings)

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 hooks, not from the point.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on "soft" ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer's approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Signal Workers

1. Wear high visibility vests before working as a signal person.
2. Only follow the signals of the person designated to give you signals when operating a crane.
3. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
4. Wear the prescribed personal protective equipment such as hardhat, goggles, gloves, dust masks and hearing protection when operating a hoist.

Steel Assembly and Connecting

1. Do not guy columns, trusses or beams unless they have been tied.
2. Do not work over an exposed vertical-reinforcing rod unless the end has been bent out.
3. Do not touch a wire rope when it is being pulled, extended or withdrawn.
4. Do not place fingers next to blocks or sheaves.

METAL MACHINING PERSONNEL

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.

6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.

10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Powder Actuated Tools

1. Wear impact-resistant safety goggles or face shields when operating any powder-actuated tools.
2. When using powder-actuated tools, do not drive fasteners into structural steel without first looking to see if the steel is backed by a steel plate or barricade, and to see if all personnel are away from the direct line of fire.
3. Do not attempt to fasten through a pre-drilled hole unless the powder-actuated tool has a hole locator.
4. Keep your head and body behind the powder-actuated tool when firing it.
5. Do not fasten steel beams at a distance closer than ½-inch from the edge of the steel.
6. Before using powder-actuated tools do not alter, bypass, or remove the shield or guard at the muzzle end of the powder-actuated tool.
7. Do not load a powder-actuated tool until you are ready to fire it.

Riveting and Bolting

1. Do not use your hands to guide a bit into place when riveting or bolting steel.
2. Disconnect the snap and plunger from an air hammer when it is not in use.
3. Do not pass air-powered tools by the hose from one worker to another.
4. Do not throw material from one person to another. Use tag lines and a basket to hoist bolts, washers, drift pins, and tools.
5. Use a receptacle or a net to catch rivets or bolts that are knocked off or backed out from your work area.

6. Do not carry nuts, bolts, rivets, or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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.

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 whenever 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.

Solvents and Cutting Fluids

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. When using chemicals labeled *flammable*, *corrosive*, *caustic*, or *poisonous*, use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear.
3. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other signs of visible damage.
4. Always wash your hands with soap and water after using cutting fluids or solvents.
5. 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 your gloves.
6. Only dispense liquid labeled “flammable” from its bulk container located in areas posted “flammable liquid storage.”
7. Do not use chemicals from unlabeled containers
8. Do not perform “hot work,” such as metal cutting or other spark-producing operations, within 50 feet of containers labeled “flammable” or “combustible.”

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

GRINDING, BUFFING, AND SURFACE FINISHING PERSONNEL

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.

5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Buffing

1. Wear your face shield or safety goggles when operating the buffer. Do not wear gloves.
2. Before changing the rasp blade, turn the power switch of the buffer to “Off” and unplug it from the power source.
3. Read and follow the manufacturer’s routine and preventive maintenance schedule posted on the workshop wall.
4. After buffing the tire, turn the power switch of the rasp and the hub to “Off” before removing the tire.
5. Keep your hands away from the rasp and the rotating buffing pads.
6. Turn the power switch of the rasp to “Off” before positioning the tire to be buffed.
7. Do not use chipped, dull or worn rasp blades.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled “Reduces Pressure to 30 psi” to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the “Off” position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Pneumatic Sanding Equipment

1. Wear gloves, aprons, dust masks, goggles and hearing protection.
2. When using a disk sander, sand on the downward side of the disk.
3. Do not use your hands to hold the part to be sanded. Use clamps and fixtures.

4. Do not eat, drink, or use tobacco products while using sanders.
5. After leaving the sanding area wash hands and exposed skin surfaces of arms.

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.

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 whenever 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.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.

9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Files/Rasps

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

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Painting Safety

1. Always wash your hands with soap and water after using paints. Do not use mineral spirits, paint thinner, acetone or any other toxic solvents to remove paint from your skin.
2. Store rags that have oil or paint on them in closed metal containers labeled "oily rags."
3. Press the pressure relief valve on painting canisters and painting guns prior to disconnecting them.
4. Do not store food or eat where spray painting is being performed.
5. Close the lids of containers of paint and thinner tightly after each use or when not being used.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic or Poisonous*.

3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Respirators

1. Use the respirator provided by your supervisor for your assigned duties.
2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
3. Do not wear contact lenses when wearing a respirator.
4. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
5. Only use the respirator that has been issued to you.

MAINTENANCE PERSONNEL

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Lockout/Tagout

6. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
7. Place the breaker or switch in the "Off" or "Safe" position.

8. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
9. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
10. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled “Reduces Pressure to 30 psi” to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the “Off” position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.

10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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.

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 whenever 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.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.

6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

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 delivery trucks.

WAREHOUSE PERSONNEL

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Stocking Shelves

1. When manually stocking shelves, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Do not let items overhang from shelves into walkways.
3. Place heavier merchandise on the lower or middle shelves.
4. Remove one object at a time from shelves.
5. Place items on shelves so they lie flat and do not lean against each other.

Handling Chemicals

1. Do not use gasoline for cleaning parts.
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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons and protective eyewear, when using chemicals labeled “Flammable,” “Corrosive,” “Caustic” or “Poisonous.”
4. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible damage.
5. 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.
6. Do not drag containers labeled “Flammable.”

Steel Drums

1. Roll a drum by pushing against the middle of the drum using both hands.
2. Use the cradle-type drum tilter when tilting drums.
3. Do not try to up-end a full drum by yourself.
4. Do not roll a full drum up a skid by yourself.
5. Chock both sides of a drum when storing the drum in a horizontal position.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.

12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

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.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.

6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Compressed Gas Cylinders

Storage and Handling

8. Do not handle oxygen cylinders if your gloves are greasy or oily.
9. Store all cylinders in the upright position.
10. Place valve-protection caps on gas cylinders that are in storage or not in use.
11. Do not lift cylinders by the valve protection cap.

12. Do not store compressed gas cylinders in areas where they can come in contact with chemicals labeled “Corrosive.”
13. Place cylinders on a cradle, sling board, pallet or cylinder basket to hoist them.
14. Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

Use of Cylinders

13. Do not use dented, cracked or other visually damaged cylinders.
14. Use only an open-ended or adjustable wrench when connecting or disconnecting regulators and fittings.
15. Do not transport cylinders without first removing regulators and replacing the valve-protection caps.
16. Close the cylinder valve when work is finished, when the cylinder is empty or whenever the cylinder is moved.
17. Do not store oxygen cylinders near fuel-gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.
18. Stand to the side of the regulator when opening the valve.
19. 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.
20. Do not hoist or transport cylinders by means of magnets or choker slings.
21. Do not use compressed gas to clean the work area, equipment or yourself.
22. Do not remove the valve wrench from acetylene cylinders while the cylinder is in use.
23. Open compressed gas cylinder valves slowly. Open fully when in use to eliminate possible leakage around the cylinder valve stem.
24. Purge oxygen valves, regulators and lines before use.

Vehicle/Driving Safety

11. Only employer-authorized personnel may operate any county vehicle.
12. Do not operate a vehicle if you are ill or fatigued.
13. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
14. Shut all doors and fasten seat belt before moving the vehicle.
15. Obey all traffic patterns and signs at all times.
16. Do not drive on the road shoulder.
17. Use side and rearview mirrors before making lane changes, turns and sudden stops.
18. Turn the vehicle off before fueling.
19. Do not smoke while fueling a vehicle.
20. Wash hands with soap and water if you spill gasoline on your hands.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 3442
METAL DOORS, SASH, FRAMES, MOLDING, AND TRIM**

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

FORK LIFT AND HOIST OPERATORS

General Machine Shop Safety

1. Read and obey safety warnings posted on or near any machinery.
2. Long hair should be contained under a hat or hair net, regardless of gender.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.

4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator’s cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.

4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on “soft” ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer’s approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. “Trial Lift” the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Signal Workers

1. Wear high visibility vests before working as a signal person.
2. Only follow the signals of the person designated to give you signals when operating a crane.
3. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
4. Wear the prescribed personal protective equipment such as hardhat, goggles, gloves, dust masks and hearing protection when operating a hoist.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.

12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Drills

1. Do not use dull, cracked or bent drill bits.
2. Physically check the security of the drill bit or cutting tool within the chuck prior to operation.
3. Keep your hands away from rotating parts.

Hydraulic/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 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.

PRODUCTION/ASSEMBLY PERSONNEL

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Powder Actuated Tools

1. Wear impact-resistant safety goggles or face shields when operating any powder-actuated tools.
2. When using powder-actuated tools, do not drive fasteners into structural steel without first looking to see if the steel is backed by a steel plate or barricade, and to see if all personnel are away from the direct line of fire.
3. Do not attempt to fasten through a pre-drilled hole unless the powder-actuated tool has a hole locator.
4. Keep your head and body behind the powder-actuated tool when firing it.
5. Do not fasten steel beams at a distance closer than ½-inch from the edge of the steel.
6. Before using powder-actuated tools do not alter, bypass, or remove the shield or guard at the muzzle end of the powder-actuated tool.
7. Do not load a powder-actuated tool until you are ready to fire it.

Riveting and Bolting

1. Do not use your hands to guide a bit into place when riveting or bolting steel.

2. Disconnect the snap and plunger from an air hammer when it is not in use.
3. Do not pass air-powered tools by the hose from one worker to another.
4. Do not throw material from one person to another. Use tag lines and a basket to hoist bolts, washers, drift pins, and tools.
5. Use a receptacle or a net to catch rivets or bolts that are knocked off or backed out from your work area.
6. Do not carry nuts, bolts, rivets, or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.

Lifting Equipment (Chains, Cables, Ropes, Slings)

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 hooks, not from the point.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic or Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:

- i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

WELDING PERSONNEL

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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.

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 whenever 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.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

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.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable*, *Corrosive*, *Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:

- a. Only use red color-coded metal containers for transferring the liquid.
- b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

GRINDING, BUFFING, AND SURFACE FINISHING PERSONNEL

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.

12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Buffing

1. Wear your face shield or safety goggles when operating the buffer. Do not wear gloves.
2. Before changing the rasp blade, turn the power switch of the buffer to "Off" and unplug it from the power source.
3. Read and follow the manufacturer's routine and preventive maintenance schedule posted on the workshop wall.
4. After buffing the tire, turn the power switch of the rasp and the hub to "Off" before removing the tire.
5. Keep your hands away from the rasp and the rotating buffing pads.
6. Turn the power switch of the rasp to "Off" before positioning the tire to be buffed.
7. Do not use chipped, dull or worn rasp blades.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.

19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Hydraulic/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 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.

Pneumatic Sanding Equipment

1. Wear gloves, aprons, dust masks, goggles and hearing protection.
2. When using a disk sander, sand on the downward side of the disk.
3. Do not use your hands to hold the part to be sanded. Use clamps and fixtures.
4. Do not eat, drink, or use tobacco products while using sanders.
5. After leaving the sanding area wash hands and exposed skin surfaces of arms.

Blasting Safety

1. Only blasters may use blasting equipment.
2. 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.
3. Do not use compressed air to clean equipment or yourself.

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.

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 whenever 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.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Painting Safety

1. Always wash your hands with soap and water after using paints. Do not use mineral spirits, paint thinner, acetone or any other toxic solvents to remove paint from your skin.

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

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.

4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Respirators

1. Use the respirator provided by your supervisor for your assigned duties.
2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
3. Do not wear contact lenses when wearing a respirator.
4. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
5. Only use the respirator that has been issued to you.

MAINTENANCE PERSONNEL

General Housekeeping

18. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
19. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
20. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
21. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
22. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
23. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
24. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
25. Keep power cords away from path of vacuum cleaners and floor polishers.
26. Keep doors fully open or fully closed.
27. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
28. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
29. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
30. Straighten or remove rugs and mats that do not lie flat on the floor.
31. Return tools to their storage places after use.
32. Dispose of trash only in trash receptacles.
33. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
34. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the "Off" or "Safe" position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.

- d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Hydraulic/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 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.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

Vises

5. 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.
6. Position the work piece in the vise so that the entire face of the jaw supports the work piece.
7. Do not use a vise that has worn or broken jaw inserts, or has cracks or fractures in the body of the vise.
8. Do not slip a pipe over the handle of a vise to gain extra leverage.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.

8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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.

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 whenever 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.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

WAREHOUSE PERSONNEL (STOREROOM/STOCKROOM, SHIPPING AND RECEIVING)

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Hand Truck Safety

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

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.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Order pickers

1. Do not operate an order picker without your safety belt or lanyard in place.
2. Do not remove your safety belt or lanyard when the order picker is in the raised position.
3. Do not allow any personnel to stand under the order picker while it is in the raised position.

4. Drive the order picker at a walking pace.
5. Do not drive with the order picker in the raised position.

Conveyors

1. Only conveyor-belt operators may operate the electric conveyor belts.
2. Do not jump onto, climb over, or ride on the conveyor.
3. Do not remove, alter, or bypass safety guards or devices when operating a conveyor belt.
4. Do not try to stop a work piece as it goes along the conveyor belt. If the machine gets jammed, turn the power switch to the “Off” position before clearing the jam.
5. Replace the guards before starting the conveyor and after making adjustments or repairs.

Drum Handling

1. Roll a drum by pushing against the middle of the drum with both hands.
2. Use a cradle-type drum tilter when tilting drums.
3. Do not manually upright drums under any circumstances – use a forklift.
4. Do not roll a drum up a skid by yourself.
5. Chock both sides of the drum when storing it in a horizontal position.

Handling Chemicals

1. Do not use gasoline for cleaning parts.
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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons and protective eyewear, when using chemicals labeled “Flammable,” “Corrosive,” “Caustic” or “Poisonous.”
4. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible damage.
5. 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.
6. Do not drag containers labeled “Flammable.”

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.

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 whenever 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.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Packaging/Unpackaging

1. Wear protective gloves when building boxes for packaging.
2. When using tape dispenser, direct the cutting edge away from your body.
3. Slide all containerized packages or use hand trucks, pallet jack or other lifting aids.

Pneumatic Stapler

1. Do not discharge stapler unless it is touching the cardboard of the box being built.
2. Keep your free hand from behind the box flap being stapled.
3. If something or someone distracts you from your work, discontinue the stapling operation until it is safe to resume.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Vehicle Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when truck is being refueled.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3511 STEAM, GAS, AND HYDRAULIC TURBINES, AND TURBINE GENERATOR SET UNITS

PRODUCTION EMPLOYEES

Band Saws

1. If the material binds or pinches on the blade, turn the power switch of the band saw to the “Off” position and allow the blade to stop before attempting to back the work away from the blade.
2. If the saw blade breaks, follow this procedure:
 - a. Shut off the power.
 - b. Lock the start switch in the “Off” position.
 - c. Do not attempt to remove any part of the saw blade until the machine has completely stopped.
3. Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.
4. Do not use your hands to clear scraps around the cutting blade of the band saw – use the pusher stick.

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.

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 whenever 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.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on "soft" ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer's approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Disc Sander

1. Turn the switch to the "Off" position before connecting the sander to the power source.
2. Put all guards securely in place before connecting the sander to the power source.
3. Do not place the sander on the material to be sanded before starting the sander.
4. Inspect the back-up pad and disc to ensure they are securely fastened.
5. Inspect the grinding disc for defects such as cracks, breaks or grooves. Do not use if any of these conditions are present.
6. Do not install a sanding disc whose labeled RPM speed is lower than the rated speed of the sander.
7. When starting the sander, hold it away from your person in a protected place, such as under a workbench, until you have determined that it is operating safely.
8. After use, wait until the disc has fully stopped rotating and place the sander on its back or on a rubber stand. Disconnect it from the power source.
9. Do not hold a small piece of material in your hand to sand it.
10. Do not overload the sander by pushing it down onto the work piece. Allow the weight of the sander to supply the pressure.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.

5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the “On” position before operating the battery charger.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the "On" position.
7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.
14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the "Off" position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."

13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Clamps

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

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.

4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled Flammable, Corrosive, Caustic or Poisonous.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:
 - (1) Only use red color-coded metal containers for transferring the liquid.
 - (2) Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform "hot work," such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled "Flammable" or "Combustible."
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.

8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Hearing Protection

1. Wear hearing protectors in work area’s posted “Hearing Protection Required.”
2. Inspect the hearing protectors for cleanliness before and after each use.
3. Store hearing protectors in a clean and sanitary location.

Hydraulic/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 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.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign “Detour.”
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.

2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
5. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
6. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer’s load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county's respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

Solvents and Cutting Fluids

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. When using chemicals labeled flammable, corrosive, caustic, or poisonous, use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear.
3. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other signs of visible damage.
4. Always wash your hands with soap and water after using cutting fluids or solvents.
5. 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 your gloves.
6. Only dispense liquid labeled “flammable” from its bulk container located in areas posted “flammable liquid storage.”
7. Do not use chemicals from unlabeled containers
8. Do not perform “hot work,” such as metal cutting or other spark-producing operations, within 50 feet of containers labeled “flammable” or “combustible.”

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.

9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn "Off" the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.

- c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Electric Arc Welding

1. Obey all signs posted in the welding area.
2. Use the welding screen to shield other employees from flying slag and intense light.
3. Wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt and long pants when welding.
4. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
5. Do not change electrodes with bare hands; use dry welder's gloves.
6. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

INDUSTRY SPECIFIC RULES – PRODUCTION EMPLOYEES

Blow Torch Operations

1. Keep hands and other employees clear of blow torch and the blow-torch area when in operation.
2. Do not leave oily rags, paper or other combustible materials in the blow-torch area.
3. Do not use a cigarette lighter to ignite torches; use friction lighters only.
4. When blow torching, wear heat-resistant gloves.
5. Obey all signs posted in the blow-torch area.
6. Do not touch the generator set during blow-torch operation, while the generator set is being assembled, and while the generator set is cooling.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 3519
INTERNAL COMBUSTION ENGINES,
NOT ELSEWHERE CLASSIFIED**

PRODUCTION EMPLOYEES

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.

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 whenever 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.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.

5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Chain Hoists

1. Hoist chain and hoist rope should be free of kinks or twists to operate.
2. Do not wrap hoist chain or hoist rope around load.
3. Do not operate chain hoist unless trained and authorized by your supervisor.
4. Procedure during hoist:
 - a. When moving the load avoid sudden acceleration or deceleration.
 - b. Do not let load contact any obstruction.
 - c. Do not position yourself between the load and wall or any other immovable object.
 - d. Do not load overhead hoist beyond the rated capacity.
 - e. Secure and balance the load before lifting.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.

21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.

4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the "On" position before operating the battery charger.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."

13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Clamps

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

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.

3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow Out" hoses before attaching the torch.
7. "Blow Out" the cylinder valve before attaching or reattaching a hose to the cylinder.
8. Do not use a cigarette lighter to ignite torches; use friction lighters only.
9. When welding, wear welding gloves, a long sleeve shirt, long pants, a welding apron and the welding helmet that has filter plates and lenses.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn off the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses over night:
 - a. Turn the valve knobs located at the base of the torch handle clockwise to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders clockwise to close the valves on these cylinders.

- c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles out from the regulator until the T-handles turn easily; do not completely pull the T-handles out from the regulator.
- d. Turn the valve knobs at the base of the torch counterclockwise to open the valves; leave the valves open for only two seconds, then turn the valve knobs clockwise to close the valves again. If you do not observe a drop in pressure on the regulator gages, repeat steps a.-b.
- e. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Portable Welding Equipment

1. Welder's gloves are required for all welders when using welding equipment.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
4. When replacing power plugs and cords of the welding apparatus, always check to ensure that the ground wire is connected.

Electric Arc Welding

1. Obey all signs posted in the welding area.
2. Use the welding screen to shield other employees from flying slag and intense light.
3. Wear a welding helmet with filter plates and lenses, welding gloves, long sleeve shirt and long pants when welding.
4. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
5. Do not change electrodes with bare hands; use dry welder's gloves.

Lockout/Tagout

NOTE: Devices such as padlocks should be provided for locking out the source of power at the main disconnect switch. Before any maintenance, inspection, cleaning, adjusting or servicing of equipment (hydraulic, electrical, mechanical or air) that requires entrance into or close contact with the machinery or equipment, the main power disconnect switch or valve, or both, controlling the source of power or flow of material, should be locked-out or blocked off with a padlock, blank flange or similar device.

1. Do not perform any maintenance, inspection, cleaning, adjusting or servicing of any equipment without following the county's lockout / tagout program.
2. If required to work on powered equipment (hydraulic, electrical, air, etc.) you should have your personal padlock with your name on it and personal key on your person at all times.
3. Disconnect and padlock all machine power disconnects in the off position before removing guards for the purpose of working "ON" or "IN" the machinery or approaching its unguarded parts. (NOTE: When more than one employee is working on a single piece of equipment, each employee should use his own padlock along with lockout tongs to lock out the equipment. When the work is completed, he should remove only his lock.
4. Do not commence equipment repair or maintenance work until you have verified that the tagged/locked out switch or control cannot be overridden or bypassed.

5. Replace all guards before removing personal padlocks from the control.
6. Do not use or remove another employee's protective lock. Do not remove a lock from equipment unless you placed it there.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county's respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

Hearing Protection

1. Wear hearing protectors in work area's posted "Hearing Protection Required."
2. Inspect the hearing protectors for cleanliness before and after each use.
3. Store hearing protectors in a clean and sanitary location.

Vertical Turret Lathe, Horizontal Boring Mill and Engine Lathe Safety

1. Replace the guards before starting the machines, after making adjustments and after making repairs to a machine.
2. Do not remove, alter or bypass any safety guard or device when operating any piece of equipment or machinery.
3. Read and obey safety warnings posted on or near any machinery.
4. Do not wear loose clothing, jewelry or neckties when operating machinery.
5. Long hair should 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.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3536 OVERHEAD TRAVELING CRANES, HOIST, AND MONORAIL SYSTEMS

PRODUCTION AND MAINTENANCE PERSONNEL

Hydraulic/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 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.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.

3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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. Do not force a screwdriver by using a hammer or pliers on it.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are

not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.

6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Circular Saws

1. Disconnect the plug from the power supply when the circular saw is not being used, before changing blades, when making cutting depth or bevel adjustments, or when inspecting or cleaning the saw.
2. Do not use the circular saw if the lower guard does not close briskly and completely cover the saw blade.
3. Do not wedge or tie the lower guard of the circular saw "open."
4. When pocket cutting, raise the lower guard of the circular saw by pulling the retracting lever.
5. Finger-tighten the depth and bevel adjustments before using the circular saw.
6. Do not use a washer or bolt to adjust the arbor size of the blade of the circular saw.
7. Grip the circular saw only by its handles when operating or transporting the saw.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the "On" position.
7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.
14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the "Off" position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Magnetic Drill

1. Before using the drill for overhead work and when drilling on a vertical surface over three feet above the floor, secure the safety-fall chain to a structure that should support the weight of the magnetic drill.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Heat Gun (Glue Gun)

1. Do not expose any body part to the heat source of the gun.
2. Place the gun in a holder or on an insulated material after use.
3. Pick up the gun by the handle, not by the shaft.
4. Keep hands clear of “barrel opening” when operating the heat gun.

Soldering Operations

1. Turn on the local exhaust-ventilation system before turning on the soldering machine or performing any soldering tasks except “spot” soldering.
2. Use a soldering iron only if the holder is insulated and non-combustible. Place the iron in a stand during standby.
3. Do not use the soldering iron on or over wooden surfaces.
4. Never use a soldering iron that has a loose barrel.
5. Do not pick up a solder tip from a tray with your fingers. Use a pair of needle nose pliers.
6. No eating, smoking, or drinking is permitted at the workstation.
7. Do not place flammable or combustible objects (e.g. paper, wood) on or near the hot iron.
8. Wear eye protection and heavy-duty temperature gloves when operating the wave-soldering machine.
9. Do not pick up parts after the hot solder is applied. Allow the part 1 to 2 minutes to cool before handling.

Jacks

1. Do not exceed the jack’s rated lifting capacity as noted on the label of the jack.
2. Clear all tools, equipment and any other obstructions from under the vehicle before lowering the jack.

Punch Presses and Press Brakes

1. Do not place hands in or near the point-of-operation.
2. Do not block, tie down, or hold down anyone of the two-handed controls.

3. Remove your foot from the foot pedal after each stroke of the ram.
4. Do not use any foot control that does not have foot-pedal covers to protect the pedal from 1) falling objects; or 2) anyone accidentally stepping on the pedal.
5. Do not place a foreign object (i.e. block, brick) on the foot-pedal control.
6. When a press brake or punch press has a partial revolution cycle, do not use the machine if it does not stop “cycling” when you remove your hands from the two-handed controls, or when you remove your foot from the foot-pedal control.
7. When a punch press has a partial revolution cycle, do not use the punch press if the stop control does not stop the punch press.
8. When a press brake or punch press has a full revolution cycle, do not use the machine if it continues to “cycle” more than once when holding the two-handed controls, or pressing the foot pedal.
9. 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.
10. Use hand-feeding tools, when available.
11. Clear all tools and obstructions from the path of the press and alert your co-workers before activating it.
12. Do not touch any moving parts of the press. The press should be disengaged and stopped completely before touching any operating part.

Lathes

1. Guard the cutting heads on metal lathes, whether rotating or not, before starting machine and after making adjustments or repairs to the lathe.
2. Do not use metal stock that is cracked or dented.
3. Before turning the power on, rotate the stock by hand to ensure that it turns freely. Stand to one side of the lathe when the power is first turned on.
4. Increase or decrease the speed of the lathe gradually to help prevent the metal stock from coming off the spindle.
5. The lathe should be started at the lowest speed.
6. Stop the lathe before attempting to measure the diameter of the metal stock.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.

13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn “Off” the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Electric Arc Welding

1. Obey all signs posted in the welding area.
2. Use the welding screen to shield other employees from flying slag and intense light.
3. Wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt and long pants when welding.
4. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
5. Do not change electrodes with bare hands; use dry welder’s gloves.
6. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

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.

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 whenever 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.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator’s cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on “soft” ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer’s approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.

16. “Trial Lift” the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Rigging Ropes, Cables and Chains

Ropes

1. Visually inspect ropes for broken strands, cuts, worn spots or any other damage. Do not use damaged ropes.

Wire Ropes and Cables

2. Follow your employer’s rigging inspection best practice guidelines.
3. Remove wire rope from service when any of the following
4. conditions exist:
 - a. Twelve broken wires in 1 lay of the hoist cable.
 - b. Four broken wires in a strand in 1 lay of the hoist cable.
 - c. Ten broken wires in a strand in 1 lay of a cable sling.
 - d. When “bird caging” is present.
 - e. When excess corrosion is present on the cable.
5. Wear leather work-gloves when handling wire ropes or cables.
6. Do not use wire ropes that are kinked.
7. Keep your hands away from the cable that is “feeding” a drum, pulley or sheave.

Steel Drums

1. Roll a drum by pushing against the middle of the drum using both hands.
2. Use the cradle-type drum tilter when tilting drums.
3. Do not try to up-end a full drum by yourself.
4. Do not roll a full drum up a skid by yourself.
5. Chock both sides of a drum when storing the drum in a horizontal position.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county’s respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

Hearing Protection

1. Wear hearing protectors in work area’s posted “Hearing Protection Required.”
2. Inspect the hearing protectors for cleanliness before and after each use.
3. Store hearing protectors in a clean and sanitary location.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Spray 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 before disconnecting them.
3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled “Flammable” or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.
6. Return containers of thinners, mineral spirits and other liquids labeled “Flammable” to the storage cabinet labeled “Flammable Storage,” when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the “On” position to operate the mechanical ventilation system before and during all spraying operations.

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.

WAREHOUSE PERSONNEL

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled "Flammable."
12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.

5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.
6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.

3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the "On" position before operating the battery charger.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Hand Truck Safety

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

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3592 CARBURETORS, PISTONS, PISTON RINGS, AND VALVES

OFFICE PERSONNEL – MANAGEMENT, SECRETARIES, BOOKKEEPERS, SALES Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to “off” and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

PRODUCTION PERSONNEL - MACHINISTS, WELDERS

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Personal Protective Equipment

1. Wear safety glasses, goggles or face shields when operating mills, grinders, bores, polishers, or gear hobbbers.
2. Wear face shields over goggles or safety glasses during open furnace, metal plating or hot-forging operations.
3. Wear chemical goggles when using, applying or handling chemical liquids or powders from containers labeled "caustic" or "corrosive."
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. When welding, wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and an apron.
8. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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.

Clamps

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

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Drills

1. Do not use dull, cracked or bent drill bits.
2. Physically check the security of the drill bit or cutting tool within the chuck prior to operation.
3. Keep your hands away from rotating parts.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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.

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 whenever 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.

WAREHOUSE PERSONNEL - SHIPPING/RECEIVING, STOREROOM/STOCKROOM

Warehouse Safety

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.

17. Store liquid containers labeled “Flammable” only in cabinets, rooms or buildings labeled “Flammable Storage.”

Personal Protective Equipment

1. Wear safety glasses, goggles or face shields when operating mills, grinders, bores, polishers, or gear hobbers.
2. Wear face shields over goggles or safety glasses during open furnace, metal plating or hot-forging operations.
3. Wear chemical goggles when using, applying or handling chemical liquids or powders from containers labeled “caustic” or “corrosive.”
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. When welding, wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and an apron.
8. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled Flammable, Corrosive, Caustic or Poisonous.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.

8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 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 the load is tilted slightly backward for added stability.
6. Drive with the load at a ground clearance height of 4 to 6 inches at the tips, and 2 inches at the heels to clear most uneven surfaces and debris.
7. Drive at a walking pace and apply the brakes slowly when driving on slippery surfaces such as icy or wet floors.
8. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
9. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
10. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
11. Do not exceed a safe working speed of 5 miles per hour. Slow down in congested areas when driving the forklift.
12. Stay a minimum distance of three truck lengths from other operating mobile equipment.
13. Drive in reverse and use a signal person when the load blocks your vision.
14. Look in the direction you are driving; proceed when you have a clear path.
15. Do not drive the forklift while people are on the attached man-lift platform.
16. Drive unloaded forklifts in reverse when going up a ramp, and forward when going down a ramp.
17. Drive a loaded forklift in a forward gear when going up a ramp. Upon approaching the ramp, raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface.
18. Do not attempt to turn the forklift around on a ramp.
19. Do not use a gear for the opposite direction of travel as a means to slow down or stop the forklift.
20. Do not use “Reverse” as a brake for the forklift.
21. Lower the mast completely, turn the engine “Off” and set the parking brake before leaving your forklift.
22. Do not use bare forks as a man-lift platform.
23. Approach railroad tracks at a 45-degree angle when driving the forklift.
24. Steer the forklift wide when making turns.
25. Sound the forklift horn when approaching blind corners, doorways or aisles to alert other operators and pedestrians.

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.

Lifting Equipment (Chains, Cables, Ropes, Slings)

1. Do not use chain slings if links are cracked, twisted, stretched or bent.
2. Do not use a kinked chain.
3. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
4. Do not place your hands between the sling and its load when the sling is being tightened around the load.
5. Lift the load from the center of hooks, not from the point.

Hand Truck Safety

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

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.

2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

MAINTENANCE PERSONNEL

General Rules

1. 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.
2. When performing machine maintenance and repair from a ladder, face the ladder and do not lean backward or sideways from the ladder.
3. Do not carry items in your hands while climbing up or down a ladder.
4. Do not jump from ramps, platforms, ladders or step stools.
5. Do not stand on toolboxes, chests or cabinets to gain extra height.
6. Keep walking surfaces of elevated working platforms, such as scaffolds, clear of tools and materials that are not being used.
7. Do not store food or eat where solvents or cutting fluids are stored or used.
8. Close the lids of containers of solvents tightly after each use or when not being used.
9. Do not use gasoline for cleaning purposes.

Personal Protective Equipment

1. Wear safety glasses, goggles or face shields when operating mills, grinders, bores, polishers, or gear hobbers.
2. Wear face shields over goggles or safety glasses during open furnace, metal plating or hot-forging operations.
3. Wear chemical goggles when using, applying or handling chemical liquids or powders from containers labeled "caustic" or "corrosive."
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. When welding, wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and an apron.
8. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.

5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the "Off" or "Safe" position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.

- d. Ensure the system you should be working on is the same one that has been locked out.
5. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
6. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.

25. 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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.

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 whenever 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.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 3593 & # 3594
FLUID POWER CYLINDERS AND ACTUATORS AND FLUID POWER
PUMPS AND MOTORS**

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

SHOP/FIELD SERVICE TECHNICIANS

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.

11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled “Reduces Pressure to 30 psi” to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the “Off” position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.

4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Lockout/Tagout

1. Do not remove a lock from equipment unless you placed it there.
2. Attach your own lock or tag when you need to isolate an energy source.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Lathes

1. Guard the cutting heads on metal lathes, whether rotating or not, before starting machine and after making adjustments or repairs to the lathe.
2. Do not use metal stock that is cracked or dented.
3. Before turning the power on, rotate the stock by hand to ensure that it turns freely. Stand to one side of the lathe when the power is first turned on.
4. Increase or decrease the speed of the lathe gradually to help prevent the metal stock from coming off the spindle.
5. The lathe should be started at the lowest speed.
6. Stop the lathe before attempting to measure the diameter of the metal stock.

Band Saws

1. If the material binds or pinches on the blade, turn the power switch of the band saw to the “Off” position and allow the blade to stop before attempting to back the work away from the blade.
2. If the saw blade breaks, follow this procedure:
 - a. Shut off the power.
 - b. Lock the start switch in the “Off” position.
 - c. Do not attempt to remove any part of the saw blade until the machine has completely stopped.
3. Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.
4. Do not use your hands to clear scraps around the cutting blade of the band saw – use the pusher stick.

Testing/Repairing Cylinders

1. Do not use air pressure to disassemble cylinders; use oil pressure.
2. Bleed all air before pressuring with oil.
3. Do not use compressed air to clean equipment, parts or yourself.
4. Do not smoke while in the test, repair or service areas.

Hydraulic Test Stand Safety

1. Read and obey safety warnings posted on or near the test stand.
2. If you experience a problem with the test stand, follow posted instructions to disconnect the power and tag the equipment “Out of Service.”
3. Wear hearing protection when using the test stand.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.

14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.

5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Hydraulic Lifts

1. Follow the operating instructions provided by the lift's manufacturer.
2. Wear eye protection when working under vehicles to block dirt, debris, and parts from entering your eyes.
3. Use and never bypass the safety latches on the hydraulic lift contact pads.
4. Do not stand in front of vehicles that are being driven on to the lift.
5. Do not raise the lift with anyone inside the vehicle.
6. Remove all tools, cords, hoses, trash and any other debris from the lift area and wipe up all grease and oil spills before driving a vehicle into your service bay.
7. Do not use any lift with cracked contact pads or lift arms, or any other visible damage.
8. Do not leave the controls unattended while the lift is in motion.
9. Do not block or "tie open" the lift's control while the lift is in motion.
10. Do not use the engine or transmission supports or stands as a substitute for jack stands.

11. If the vehicle begins to slip off of the lift, run in the opposite direction of the fall, but not toward a wall or workbench that might trap you between the object and the vehicle.
12. Before you lower the vehicle, remove tool trays, jack, engine, and transmission stands, and any other obstruction from under the vehicle.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Lifting Equipment (Chains, Cables, Ropes, Slings)

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 hooks, not from the point.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.

5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

HOSE ASSEMBLY PERSONNEL

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.

11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.

25. 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.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Lockout/Tagout

1. Do not remove a lock from equipment unless you placed it there.
2. Attach your own lock or tag when you need to isolate an energy source.

Hose Cutting Safety

1. Do not use a chop saw that has cracked, broken, or loose guards or other visible damage.
2. Do not use chop saws that have dull blades.
3. Do not make measurements to the hose while the chop saw is running. Make the measurements before turning the power switch to the “On” position.
4. Keep your hands away from the exposed blade.
5. Do not perform cutting operations with the chop saw while standing on a wet or slippery floor.
6. Do not use the chop saw if the blade starts getting hot; stop it until the blade cools off.
7. Turn the power switch of the saw to “Off” and allow the blade to stop before attempting to pull out an incomplete cut.
8. Do not alter the anti-kickback devices or blade guards.
9. When using the chop saw, do not reach across the cutting operation.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Personal Protective Equipment

8. Do not wear hard hats that are dented or cracked.
9. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
10. Wear safety goggles when welding or soldering.
11. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
12. Wear the di-electric gloves when working on electric current.
13. Do not wear jewelry or coats with metal zippers to work.
14. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

WELDING PERSONNEL

Housekeeping

1. Return tools to their storage places after using them.
2. Do not use gasoline for cleaning purposes.

Hand Tool Safety

16. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
17. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
18. Carry all sharp tools in a sheath or holster.
19. Tag worn, damaged or defective tools “Out of Service” and do not use them.
20. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
21. Do not use impact tools such as hammers, chisels, punches or steel stakes that have mushroomed heads.
22. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
23. When using knives, shears or other cutting tools, cut in a direction away from your body.
24. Do not chop at heights above your head when you are working with a hand axe.
25. 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.

26. Do not perform “make-shift” repairs to tools.
27. Do not use “cheaters” on load binders or “boomers.”
28. 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.
29. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
30. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

Hammers

6. Use a claw hammer for pulling nails.
7. Do not strike nails or other objects with the cheek of the hammer.
8. Do not strike one hammer against another hammer.
9. Do not use a hammer if your hands are oily, greasy or wet.
10. Do not use a hammer as a wedge or a pry bar.

Saws

8. Keep control of saws by releasing downward pressure at the end of the stroke.
9. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
10. Do not use a saw that has a dull saw blade.
11. Keep hands and fingers away from the saw blade while using the saw.
12. Do not hold the work piece against your body while using the saw.
13. Do not carry a saw by the blade.
14. When using a hand saw, hold the work piece firmly against the work table.

Screwdrivers

12. Always match the size and type of screwdriver blade to fit the head of the screw.
13. Do not hold the work piece against your body while using a screwdriver.
14. Do not put your fingers near the blade of the screwdriver when tightening a screw.
15. Do not force a screwdriver by using a hammer or pliers on it.
16. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
17. Use a screwdriver that has an insulated handle for electrical work.
18. Use a drill, nail, or an awl to make a starting hole for screws.
19. Do not carry a screwdriver in your pocket.
20. Do not use a screwdriver if your hands are wet, oily or greasy.
21. When using the spiral ratchet screwdriver, push down firmly and slowly.
22. Do not use a screwdriver to test the charge of a circuit.

Wrenches

9. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.

10. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
11. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
12. Do not slip a pipe over a single-head wrench handle for increased leverage.
13. Do not use a shim to make a wrench fit.
14. Size the adjustable wrench to fit the nut before turning.
15. Use a split box wrench on flare nuts.
16. Do not use a wrench with broken or battered points.

Pliers

6. Do not use pliers as a wrench or a hammer.
7. Do not slip a pipe over the handles of pliers to increase leverage.
8. Use pliers with an insulated handle for electrical work.
9. Do not use pliers that are cracked, broken or sprung.
10. 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.

Vises

5. 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.
6. Position the work piece in the vise so that the entire face of the jaw supports the work piece.
7. Do not use a vise that has worn or broken jaw inserts, or has cracks or fractures in the body of the vise.
8. Do not slip a pipe over the handle of a vise to gain extra leverage.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.

4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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.

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 whenever 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.

Personal Protection Equipment

1. Wear the welding helmet or welding goggles during welding operations.
2. Wear the dielectric gloves when working on electric current.

MAINTENANCE PERSONNEL

General Rules

1. 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.
2. When performing machine maintenance and repair from a ladder, face the ladder and do not lean backward or sideways from the ladder.
3. Do not carry items in your hands while climbing up or down a ladder.
4. Do not jump from ramps, platforms, ladders or step stools.
5. Do not stand on toolboxes, chests or cabinets to gain extra height.
6. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
7. Do not store food or eat where solvents or cutting fluids are store or used.
8. Close the lids of containers of solvents tightly after each use or when not being used.
9. Do not use gasoline for cleaning purposes.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Hand Tool Safety

16. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
17. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.

18. Carry all sharp tools in a sheath or holster.
19. Tag worn, damaged or defective tools “Out of Service” and do not use them.
20. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
21. Do not use impact tools such as hammers, chisels, punches or steel stakes that have mushroomed heads.
22. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
23. When using knives, shears or other cutting tools, cut in a direction away from your body.
24. Do not chop at heights above your head when you are working with a hand axe.
25. 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.
26. Do not perform “make-shift” repairs to tools.
27. Do not use “cheaters” on load binders or “boomers.”
28. 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.
29. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
30. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Screwdrivers

23. Always match the size and type of screwdriver blade to fit the head of the screw.
24. Do not hold the work piece against your body while using a screwdriver.
25. Do not put your fingers near the blade of the screwdriver when tightening a screw.
26. Do not force a screwdriver by using a hammer or pliers on it.
27. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
28. Use a screwdriver that has an insulated handle for electrical work.
29. Use a drill, nail, or an awl to make a starting hole for screws.
30. Do not carry a screwdriver in your pocket.
31. Do not use a screwdriver if your hands are wet, oily or greasy.
32. When using the spiral ratchet screwdriver, push down firmly and slowly.
33. Do not use a screwdriver to test the charge of a circuit.

Wrenches

17. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
18. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
19. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
20. Do not slip a pipe over a single-head wrench handle for increased leverage.
21. Do not use a shim to make a wrench fit.
22. Size the adjustable wrench to fit the nut before turning.
23. Use a split box wrench on flare nuts.
24. Do not use a wrench with broken or battered points.

Pliers

11. Do not use pliers as a wrench or a hammer.
12. Do not slip a pipe over the handles of pliers to increase leverage.
13. Use pliers with an insulated handle for electrical work.
14. Do not use pliers that are cracked, broken or sprung.
15. 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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Machine Safety

1. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
2. Do not wear loose clothing or jewelry in the washing machine area.
3. Long hair should be contained under a hat or hair net, regardless of gender.
4. Do not try to pull out a garment as it goes through any machine. If the machine becomes jammed, disconnect the power before clearing the jam.
5. Do not try to stop a bundle as it runs on the conveyor system. If the conveyor belt becomes jammed, disconnect the power before clearing the jam.
6. Do not operate a dryer with the door open.
7. After the dryer stops, allow contents to cool for a few minutes before emptying the dryer.
8. Do not put your head, arms or other body parts into conveyor driven bundles/bags or moving drums of dryers.
9. Do not climb on conveyors, racks or in tumblers for any reason.

Lockout/Tagout

1. Do not remove a lock from equipment unless you placed it there.
2. Attach your own lock or tag when you need to isolate an energy source.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.

13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Compressed Gas Cylinders

Storage and Handling

8. Do not handle oxygen cylinders if your gloves are greasy or oily.
9. Store all cylinders in the upright position.
10. Place valve-protection caps on gas cylinders that are in storage or not in use.
11. Do not lift cylinders by the valve protection cap.
12. Do not store compressed gas cylinders in areas where they can come in contact with chemicals labeled "Corrosive."
13. Place cylinders on a cradle, sling board, pallet or cylinder basket to hoist them.
14. Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

Use of Cylinders

13. Do not use dented, cracked or other visually damaged cylinders.
14. Use only an open-ended or adjustable wrench when connecting or disconnecting regulators and fittings.
15. Do not transport cylinders without first removing regulators and replacing the valve-protection caps.
16. Close the cylinder valve when work is finished, when the cylinder is empty or whenever the cylinder is moved.
17. Do not store oxygen cylinders near fuel-gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.
18. Stand to the side of the regulator when opening the valve.
19. 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.
20. Do not hoist or transport cylinders by means of magnets or choker slings.
21. Do not use compressed gas to clean the work area, equipment or yourself.
22. Do not remove the valve wrench from acetylene cylinders while the cylinder is in use.
23. Open compressed gas cylinder valves slowly. Open fully when in use to eliminate possible leakage around the cylinder valve stem.
24. Purge oxygen valves, regulators and lines before use.

WAREHOUSE PERSONNEL - STOREROOM/STOCKROOM

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.

7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Personal Protective Equipment

15. Do not wear hard hats that are dented or cracked.
16. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
17. Wear safety goggles when welding or soldering.
18. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
19. Wear the di-electric gloves when working on electric current.
20. Do not wear jewelry or coats with metal zippers to work.
21. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.

- j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.

2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

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.

Lifting Equipment (Chains, Cables, Ropes, Slings)

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 hooks, not from the point.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.

13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 3599
INDUSTRIAL AND COMMERCIAL MACHINERY AND EQUIPMENT,
NOT ELSEWHERE CLASSIFIED**

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

PRODUCTION PERSONNEL – MACHINISTS, PRESS OPERATORS

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled “Oily Rags Only.” Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop-rags.
17. Store liquid containers labeled “Flammable” only in cabinets, rooms or buildings labeled “Flammable Storage.”

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign “Detour.”
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Hydraulic Test Stand Safety

1. Read and obey safety warnings posted on or near the test stand.
2. If you experience a problem with the test stand, follow posted instructions to disconnect the power and tag the equipment “Out of Service.”
3. Wear hearing protection when using the test stand.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it “Out of Service.”
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.

6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled “Type 1.”
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.

3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

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.

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 whenever 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.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

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 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 power switch of the tool to "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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. “Square up” and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.

4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.

4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Lifting Equipment (Chains, Cables, Ropes, Slings)

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 hooks, not from the point.

WELDING PERSONNEL

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Oxy-Fuel Welding

1. Open doors, windows and turn the power switch of the local exhaust fans to the “On” position when welding indoors.
2. Weld either outside or with the garage doors and the shop windows open.
3. Obey all signs posted in the welding area.
4. Do not leave oily rags, paper or other combustible materials in the welding area.
5. Use the welding screen to shield other employees from flying slag and intense light.
6. Before welding, place the floor fan behind you to keep fumes away from your face.
7. Wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt, long pants and an apron.
8. Do not wear contact lenses when welding.
9. Do not use a torch on any container that is labeled “Flammable” or “Combustible.”

10. Do not use oxygen for ventilation purposes, comfort cooling, blowing dust from clothing, or for cleaning the work area.

Arc Welding

1. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
2. Insulated work gloves are required for all welders when using welding equipment.
3. Do not use the welding apparatus if the power plug is cut, frayed, split or otherwise visibly damaged or modified.
4. Do not change electrodes with bare hands; use dry rubber gloves.

Compressed Gas Cylinders

Storage and Handling

8. Do not handle oxygen cylinders if your gloves are greasy or oily.
9. Store all cylinders in the upright position.
10. Place valve-protection caps on gas cylinders that are in storage or not in use.
11. Do not lift cylinders by the valve protection cap.
12. Do not store compressed gas cylinders in areas where they can come in contact with chemicals labeled "Corrosive."
13. Place cylinders on a cradle, sling board, pallet or cylinder basket to hoist them.
14. Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

Use of Cylinders

13. Do not use dented, cracked or other visually damaged cylinders.
14. Use only an open-ended or adjustable wrench when connecting or disconnecting regulators and fittings.
15. Do not transport cylinders without first removing regulators and replacing the valve-protection caps.
16. Close the cylinder valve when work is finished, when the cylinder is empty or whenever the cylinder is moved.
17. Do not store oxygen cylinders near fuel-gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.
18. Stand to the side of the regulator when opening the valve.
19. 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.
20. Do not hoist or transport cylinders by means of magnets or choker slings.
21. Do not use compressed gas to clean the work area, equipment or yourself.
22. Do not remove the valve wrench from acetylene cylinders while the cylinder is in use.
23. Open compressed gas cylinder valves slowly. Open fully when in use to eliminate possible leakage around the cylinder valve stem.
24. Purge oxygen valves, regulators and lines before use.

Grinders

9. Do not use grinding wheels that have chips, cracks or grooves.
10. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
11. Do not try to stop the wheel with your hand, even if you are wearing gloves.

12. Do not use grinder if it is not firmly anchored to the workbench.
13. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
14. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
15. Do not grind on the side of an abrasive wheel labeled "Type 1."
16. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Clamps

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

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.

9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

SHIPPING AND RECEIVING PERSONNEL

Forklifts

Pre-Use Inspection

3. Only forklift operators may operate the forklift.
4. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

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

Picking Up a Load

6. Square up on the center of the load and approach it straight on with the forks in the travel position.
7. Stop when the tips of your forks are about a foot from the load.
8. Level the forks and slowly drive forward until the load is resting against the backrest of the mast.
9. Lift the load high enough to clear whatever is under it.
10. Back up about 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

6. "Square up" and stop about 1 foot from the desired location.

7. Level the forks and drive to the loading spot.
8. Slowly lower the load to the floor.
9. Tilt the forks slightly forward so you do not hook the load.
10. 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

6. Stop about 1 foot away from the loading area and lift the mast high enough to clear the top of the stack.
7. Slowly move forward until the load is squarely over the top of the stack.
8. Level the forks and lower the mast until the forks no longer support the load.
9. Look over both shoulders for obstructions and back straight out if the path is clear.
10. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

Lifting

5. Do not exceed the lift capacity of the forklift. Read the lift capacity plate on the forklift if you are unsure.
6. Follow the manufacturer's best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
7. Lift the load 1 to 2 inches 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 greater lift capacity.
8. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

12. 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.
13. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
14. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
15. Do not drive over objects in your pathway.
16. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
17. Steer wide when making turns.
18. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
19. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
20. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
21. Drive in reverse and use a signal person when the load blocks your vision.
22. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

7. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.

8. Drive loaded forklifts forward up ramps.
9. Drive loaded forklifts in reverse when driving down a ramp.
10. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
11. Do not attempt to turn around on a ramp.
12. Do not use “Reverse” to brake.

Loading Docks

7. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
8. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
9. Attach the bridge or dock plate before driving the forklift into the truck.
10. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
11. Drive straight across the bridge plates when entering or exiting the trailer.
12. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

8. Do not manually upright fallen drums under any circumstances – use a forklift.
9. Clear all personnel from the area of the drum being up righted.
10. Move the forks of the forklift approximately 18 to 20 inches apart.
11. Line up the forklift with one fork on each side of the top of the drum.
12. Upright the drum slowly by raising the forks while slowly moving forward.
13. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
14. Move it to a clear area before attempting to upright the drum.

Hand Truck Safety

15. Tip the load slightly forward so the tongue of the hand truck goes under the load.
16. Push the tongue of the hand truck all the way under the load to be moved.
17. When loading hand trucks, keep your feet clear of the wheels.
18. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
19. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
20. Do not try to catch the load if it is falling or slipping. Get out of the way.
21. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
22. When going down an incline, keep the hand truck in front of you so you can control it at all times.
23. Move hand trucks at a walking pace.
24. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
25. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
26. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
27. Store hand trucks with the tongue under a pallet, shelf, or table.

28. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Stocking Shelves

1. When manually stocking shelves, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Do not let items overhang from shelves into walkways.
3. Place heavier merchandise on the lower or middle shelves.
4. Remove one object at a time from shelves.
5. Place items on shelves so they lie flat and do not lean against each other.

When Cutting Strapping Bands

1. Wear safety glasses when cutting strapping bands, uncrating materials and driving nails.
2. Use long handled snips when cutting strapping bands away from a shipping container.
3. Stand to the side of the strapping band when cutting it.
4. Obey all safety and danger signs posted in the workplace.

Chemical Storage

1. 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.
2. Do not smoke while handling chemicals labeled “Flammable.”
3. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
4. Do not handle or load any containers of chemicals if the containers are cracked or leaking.

Order pickers

1. Do not operate an order picker without your safety belt or lanyard in place.
2. Do not remove your safety belt or lanyard when the order picker is in the raised position.
3. Do not allow any personnel to stand under the order picker while it is in the raised position.
4. Drive the order picker at a walking pace.
5. Do not drive with the order picker in the raised position.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.

Vehicle Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.

5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when truck is being refueled.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

MAINTENANCE PERSONNEL

Housekeeping

1. Dispose of glass tubes or bulbs only in waste containers labeled "Glass" or "Broken Glass."

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.

5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.

2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.

15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

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.

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 whenever 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.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.

7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Lifting Equipment (Chains, Cables, Ropes, Slings)

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 hooks, not from the point.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3621 MOTORS & GENERATORS

PRODUCTION AND MAINTENANCE EMPLOYEES

Band Saws

1. If the material binds or pinches on the blade, turn the power switch of the band saw to the “Off” position and allow the blade to stop before attempting to back the work away from the blade.
2. If the blade breaks, follow this procedure:
 - a. Shut off the power.
 - b. Lock the start switch in the “Off” position.
 - c. Do not attempt to remove any part of the saw blade until the machine has completely stopped.
 - d. Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.
3. Do not use your hands to clear scraps around the cutting blade of the band saw – use the pusher stick.

Belt Sander

1. Align the sanding belt for proper tracking before plugging it into the power source.
2. Visually inspect the dust bag for tears, holes or other defects. Do not use the sander if any of the conditions are present.
3. Secure loose material to a flat surface before sanding.
4. Do not place the sander on the material to be sanded before starting the sander.
5. When job is completed, do not set the sander down until it has come to a complete stop.

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.

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.

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 whenever 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.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Disc Sander

1. Turn the switch to the "Off" position before connecting the sander to the power source.
2. Put all guards securely in place before connecting the sander to the power source.
3. Do not place the sander on the material to be sanded before starting the sander.
4. Inspect the back-up pad and disc to ensure they are securely fastened.
5. Inspect the grinding disc for defects such as cracks, breaks or grooves. Do not use if any of these conditions are present.
6. Do not install a sanding disc whose labeled RPM speed is lower than the rated speed of the sander.
7. When starting the sander, hold it away from your person in a protected place, such as under a workbench, until you have determined that it is operating safely.
8. After use, wait until the disc has fully stopped rotating and place the sander on its back or on a rubber stand. Disconnect it from the power source.
9. Do not hold a small piece of material in your hand to sand it.

10. Do not overload the sander by pushing it down onto the work piece. Allow the weight of the sander to supply the pressure.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a handsaw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.

7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Clamps

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

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled Flammable, Corrosive, Caustic or Poisonous.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
4. Electrically ground and bond the containers as follows:
 - a. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.

- b. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - c. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - d. Upon completion, replace the lid on the receiving container and remove the bonding wire.
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 use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
7. 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.
8. Do not use chemicals from unlabeled containers and unmarked cylinders.
9. Do not smoke while handling chemicals labeled “Flammable.”
10. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
11. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Hearing Protection

1. Wear hearing protectors in work area’s posted “Hearing Protection Required.”
2. Inspect the hearing protectors for cleanliness before and after each use.
3. Store hearing protectors in a clean and sanitary location.

Heat Gun (Glue Gun)

1. Do not expose any body part to the heat source of the gun.
2. Place the gun in a holder or on an insulated material after use.
3. Pick up the gun by the handle, not by the shaft.
4. Keep hands clear of “barrel opening” when operating the heat gun.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.

13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Lathe

1. Guard the cutting heads on metal lathes, whether rotating or not, before starting machine and after making adjustments or repairs to the lathe.
2. Do not use metal stock that is cracked or dented.
3. Before turning the power on, rotate the stock by hand to ensure that it turns freely. Stand to one side of the lathe when the power is first turned on.
4. Increase or decrease the speed of the lathe gradually to help prevent the metal stock from coming off the spindle.
5. The lathe should be started at the lowest speed.
6. Stop the lathe before attempting to measure the diameter of the metal stock.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.

3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. 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 pneumatic tools that have handles with burrs or cracks.
3. Attach the pressure-reducing nozzle that is labeled "Reduces Pressure to 30 psi" to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the "Off" position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county's respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

Sand Blasting Safety

1. Only blasters may use blasting equipment.

2. 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.
3. Do not use compressed air to clean equipment or yourself.

Spray 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 before disconnecting them.
3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled "Flammable" or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.
6. Return containers of thinners, mineral spirits and other liquids labeled "Flammable" to the storage cabinet labeled "Flammable Storage," when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the "On" position to operate the mechanical ventilation system before and during all spraying operations.

Soldering Operations

1. Turn on the local exhaust-ventilation system before turning on the soldering machine or performing any soldering tasks except "spot" soldering.
2. Use a soldering iron only if the holder is insulated and non-combustible. Place the iron in a stand during standby.
3. Do not use the soldering iron on or over wooden surfaces.
4. Never use a soldering iron that has a loose barrel.
5. Do not pick up a solder tip from a tray with your fingers. Use a pair of needle nose pliers.
6. No eating, smoking, or drinking is permitted at the workstation.
7. Do not place flammable or combustible objects (e.g. paper, wood) on or near the hot iron.
8. Wear eye protection and heavy-duty temperature gloves when operating the wave-soldering machine.
9. Do not pick up parts after the hot solder is applied. Allow the part 1 to 2 minutes to cool before handling.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.

10. 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.
11. Do not smoke while handling chemicals labeled “Flammable.”
12. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.

2. Turn the valve on the torch clockwise to turn “Off” the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - i. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - b. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - c. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Electric Arc Welding

1. Obey all signs posted in the welding area.
2. Use the welding screen to shield other employees from flying slag and intense light.
3. Wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt and long pants when welding.
4. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
5. Do not change electrodes with bare hands; use dry welder’s gloves.
6. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

WAREHOUSE EMPLOYEES

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.

8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.

11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.
6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.

4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the “On” position before operating the battery charger.

Battery Handling and Storage

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers to “Off” position prior to connecting the cables to the battery posts.
3. Do not smoke in the battery-charging areas.
4. Leave flame-arrester vent caps in place, but remove non-flame arrester-vent caps and lay a cloth over the vent holes before charging the battery.
5. Do not stand directly over the battery when performing a “load” test.
6. Obey all “No Smoking” signs posted in the battery-charging areas.
7. Do not use a screwdriver to test the charge of a battery.

General Rules – Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.

5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

INDUSTRY SPECIFIC RULES – PRODUCTION EMPLOYEES

Chop Saws

1. Wear safety goggles or face shield when operating a chop saw.
2. Do not wear loose clothing, jewelry or ties when operating the saw.
3. Do not place hands or fingers in the path of the blade.
4. After completing a cut, release the trigger switch and allow the blade to come to a complete stop and then raise the blade from the work piece.

Coil Winding Machine

1. Turn on local exhaust ventilation before starting the operation.

Punch Presses and Press Brakes

1. Do not place hands in or near the point-of-operation.
2. Do not block, tie down, or hold down anyone of the two-handed controls.
3. Remove your foot from the foot pedal after each stroke of the ram.
4. Do not use any foot control that does not have foot-pedal covers to protect the pedal from 1) falling objects; or 2) anyone accidentally stepping on the pedal.
5. Do not place a foreign object (i.e. block, brick) on the foot-pedal control.
6. When a press brake or punch press has a partial revolution cycle, do not use the machine if it does not stop “cycling” when you remove your hands from the two-handed controls, or when you remove your foot from the foot-pedal control.
7. When a punch press has a partial revolution cycle, do not use the punch press if the stop control does not stop the punch press.
8. When a press brake or punch press has a full revolution cycle, do not use the machine if it continues to “cycle” more than once when holding the two-handed controls, or pressing the foot pedal.
9. 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.
10. Use hand-feeding tools, when available.
11. Clear all tools and obstructions from the path of the press and alert your co-workers before activating it.
12. Do not touch any moving parts of the press. The press should be disengaged and stopped completely before touching any operating part.

PVC Pipe Forming

1. Wear neoprene gloves, aprons and goggles when dipping work pieces into the dip tank.
2. Turn on local exhaust ventilation before dipping the work piece into the tank.
3. Maintain good housekeeping and personal hygiene when working with the dip tank.
4. Slowly pour hot water into the dip tank to minimize splashing.

5. Slowly dip pieces into the dip tank to minimize splashing.
6. Mop up water around dip tanks when water is spilled onto floor.
7. Do not remove, alter or bypass any safety guards or devices when dipping any piece of pipe into the dip tank.
8. Read and obey safety warnings posted on or near the dip tank.
9. Wear gloves when working on molds.
10. Take periodic rest breaks from repetitive or prolonged activities by standing up and stretching.
11. Sit straight up in your chair. Where needed, use a footrest that has an adjustable height and is large enough to allow operator movement.

PVC Gluing Process

1. Turn on local exhaust ventilation before starting the operation.
2. Maintain good housekeeping and personal hygiene when performing the glue process operation.
3. Wear gloves, respirator, and goggles when performing the glue process operation.

Load Testing (Generator)

1. Make sure connections are tight and grounded to load cables when load testing.
2. Do not perform any cleaning activities in the load testing area until all load testing is complete.

Tumbler

1. Turn on local exhaust ventilation before starting the tumbler.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 3629
ELECTRICAL INDUSTRIAL APPARATUS
NOT ELSEWHERE CLASSIFIED**

PRODUCTION AND MAINTENANCE PERSONNEL

Band Saws

1. If the material binds or pinches on the blade, turn the power switch of the band saw to the “Off” position and allow the blade to stop before attempting to back the work away from the blade.
2. If the saw blade breaks, follow this procedure:
 - a. Shut off the power.
 - b. Lock the start switch in the “Off” position.
 - c. Do not attempt to remove any part of the saw blade until the machine has completely stopped.
3. Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.
4. Do not use your hands to clear scraps around the cutting blade of the band saw – use the pusher stick.

Belt Sander

1. Align the sanding belt for proper tracking before plugging it into the power source.
2. Visually inspect the dust bag for tears, holes or other defects. Do not use the sander if any of the conditions are present.
3. Secure loose material to a flat surface before sanding.
4. Do not place the sander on the material to be sanded before starting the sander.
5. When job is completed, do not set the sander down until it has come to a complete stop.

Disc Sander

1. Turn the switch to the “Off” position before connecting the sander to the power source.
2. Put all guards securely in place before connecting the sander to the power source.
3. Do not place the sander on the material to be sanded before starting the sander.
4. Inspect the back-up pad and disc to ensure they are securely fastened.
5. Inspect the grinding disc for defects such as cracks, breaks or grooves. Do not use if any of these conditions are present.
6. Do not install a sanding disc whose labeled RPM speed is lower than the rated speed of the sander.
7. When starting the sander, hold it away from your person in a protected place, such as under a workbench, until you have determined that it is operating safely.
8. After use, wait until the disc has fully stopped rotating and place the sander on its back or on a rubber stand. Disconnect it from the power source.
9. Do not hold a small piece of material in your hand to sand it.
10. Do not overload the sander by pushing it down onto the work piece. Allow the weight of the sander to supply the pressure.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the "On" position.
7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.
14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the "Off" position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.

6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled “Type 1.”
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Scroll (Jig) Saw

1. Do not use the saw unless the table is firmly secured and it is in true alignment with the saw blade.
2. Before using the saw, all belts, pulleys, shafts and gears should be guarded.
3. Tighten the blade securely in the lower chuck and adjust it inline with the blade support.
4. Check the tension of the blade by turning the motor by hand. If “knocking” is heard, readjust the tension.
5. Firmly hold the stock and feed it at a moderate rate of speed into the blade.
6. Keep fingers and hands away from the path of the blade.
7. Before removing scraps, turn off the machine and wait until it has completely stopped.

Metal Lathes

1. Cover the cutting heads on metal lathes, whether rotating or not, before starting machine and after making adjustments or repairs to the lathe.
2. Do not use metal stock that is cracked or dented.
3. Before turning the power on, rotate the stock by hand to ensure it turns freely. Stand to one side of the lathe when the power is first turned on.
4. Increase or decrease the speed of the lathe gradually to prevent the metal stock from coming off the spindle.
5. Start the lathe at its lowest speed.
6. Stop the lathe before attempting to measure the diameter of the metal stock.
7. The lathe and the area around the machine should be kept clean of metal shavings or lubricants.

Hydraulic/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 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.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.

6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.

8. Do not use a wrench with broken or battered points.
9. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open end wrenches as a second choice.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Clamps

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

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

Electrical Power Tool 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, saws, vacuum cleaners, floor polishers, mowers, slicers, knives, grinders, irons and presses.
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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.

11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Jacks

1. Do not exceed the jack’s rated lifting capacity as noted on the label of the jack.
2. Clear all tools, equipment and any other obstructions from under the vehicle before lowering the jack.

Battery Handling and Storage

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers to “Off” position prior to connecting the cables to the battery posts.
3. Do not smoke in the battery-charging areas.

4. Leave flame-arrester vent caps in place, but remove non-flame arrester-vent caps and lay a cloth over the vent holes before charging the battery.
5. Do not stand directly over the battery when performing a “load” test.
6. Obey all “No Smoking” signs posted in the battery-charging areas.
7. Do not use a screwdriver to test the charge of a battery.

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.

Conveyors

1. Only conveyor-belt operators may operate the electric conveyor belts.
2. Do not jump onto, climb over, or ride on the conveyor.
3. Do not remove, alter, or bypass safety guards or devices when operating a conveyor belt.
4. Do not try to stop a work piece as it goes along the conveyor belt. If the machine gets jammed, turn the power switch to the “Off” position before clearing the jam.
5. Replace the guards before starting the conveyor and after making adjustments or repairs.

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, stable, mobile, swivels and allows operator movement.
3. Adjust your seat height so your knees are about the same level as your hips.
4. Sit straight up in your chair. Where needed, use a footrest that has an adjustable height and is large enough to allow operator movement.
5. Adjust your computer screen and keyboard so they are directly in front of you.
6. Place the keyboard low enough so operator is not required to reach up or out to the keys.
7. Keep wrists and hands in a straight position while key stroking by keeping forearms parallel to the floor and elbows at your sides.
8. Select low frequency vibratory tools and tools that bend at the handle.
9. Select tools by weight for the task to distribute pressure evenly over the hand, to fit your hand size, and to provide a handle that accommodates a relaxed grip position.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Steel Drums

1. Roll a drum by pushing against the middle of the drum using both hands.
2. Use the cradle-type drum tilter when tilting drums.
3. Do not try to up-end a full drum by yourself.
4. Do not roll a full drum up a skid by yourself.
5. Chock both sides of a drum when storing the drum in a horizontal position.

WAREHOUSE PERSONNEL

Warehouse Safety

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.

10. 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.
11. Do not smoke while handling chemicals labeled “Flammable.”
12. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

- a. “Square up” and stop about 1 foot from the desired location.
- b. Level the forks and drive to the loading spot.
- c. Slowly lower the load to the floor.

- d. Tilt the forks slightly forward so you do not hook the load.
- e. When the path behind you is clear of obstructions, back straight out until the forks have cleared the pallet.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.

2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.
6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.

14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the “On” position before operating the battery charger.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer’s load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.

12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

JOB-SPECIFIC RULES

Production Personnel

Soldering Operations

1. Turn on the local exhaust-ventilation system before turning on the soldering machine or performing any soldering tasks except “spot” soldering.
2. Use a soldering iron only if the holder is insulated and non-combustible. Place the iron in a stand during standby.
3. Do not use the soldering iron on or over wooden surfaces.
4. Never use a soldering iron that has a loose barrel.
5. Do not pick up a solder tip from a tray with your fingers. Use a pair of needle nose pliers.
6. No eating, smoking, or drinking is permitted at the workstation.
7. Do not place flammable or combustible objects (e.g. paper, wood) on or near the hot iron.
8. Wear eye protection and heavy-duty temperature gloves when operating the wave-soldering machine.
9. Do not pick up parts after the hot solder is applied. Allow the part 1 to 2 minutes to cool before handling.

Heat Gun (Glue Gun)

1. Do not expose any body part to the heat source of the gun.
2. Place the gun in a holder or on an insulated material after use.
3. Pick up the gun by the handle, not by the shaft.
4. Keep hands clear of “barrel opening” when operating the heat gun.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 3646
COMMERCIAL, INDUSTRIAL, AND
INSTITUTIONAL ELECTRIC LIGHTING FIXTURES**

PRODUCTION 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, stable, mobile, swivels and allows operator movement.
3. Adjust your seat height so your knees are about the same level as your hips.
4. Sit straight up in your chair. Where needed, use a footrest that has an adjustable height and is large enough to allow operator movement.
5. Adjust your computer screen and keyboard so they are directly in front of you.
6. Place the keyboard low enough so operator is not required to reach up or out to the keys.
7. Keep wrists and hands in a straight position while key stroking by keeping forearms parallel to the floor and elbows at your sides.
8. Select low frequency vibratory tools and tools that bend at the handle.
9. Select tools by weight for the task to distribute pressure evenly over the hand, to fit your hand size, and to provide a handle that accommodates a relaxed grip position.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.

18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.

12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Belt Sander

1. Align the sanding belt for proper tracking before plugging it into the power source.
2. Visually inspect the dust bag for tears, holes or other defects. Do not use the sander if any of the conditions are present.
3. Secure loose material to a flat surface before sanding.
4. Do not place the sander on the material to be sanded before starting the sander.
5. When job is completed, do not set the sander down until it has come to a complete stop.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

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.

Sand Blasting Safety

1. Only blasters may use blasting equipment.

2. 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.
3. Do not use compressed air to clean equipment or yourself.

Shears

1. Keep your hands and fingers away from the point of operation and nip points of the shears.
2. Use the next piece to be sheared or a tool or pry bar to move small pieces that are on the shear's table and beyond the safeguarding.
3. Clear all tools and obstructions from the path of the shear and alert your coworkers before activating it.
4. When operating a power shear (i.e. hydraulic, pneumatic), turn off the power to the shear when leaving the shear.

Punch Presses and Press Brakes

1. Do not place hands in or near the point-of-operation.
2. Do not block, tie down, or hold down one of the two-handed controls.
3. Remove your foot from the foot pedal after each stroke of the ram.
4. Do not use any foot control that does not have foot-pedal covers to protect the pedal from falling objects or anyone accidentally stepping on the pedal.
5. Do not place a foreign object (i.e. block, brick) on the foot pedal control.
6. When a press brake or punch press has a partial revolution cycle, do not use the machine if it does not stop "cycling" when you remove your hands from the two-handed controls or when you remove your foot from the foot-pedal control.
7. When a punch press has a partial revolution cycle, do not use the punch press if the stop control does not stop the punch press.
8. When a press brake or punch press has a full revolution cycle, do not use the machine if it continues to "cycle" more than once when holding the two-handed controls or pressing the foot pedal.
9. 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.
10. Use hand-feeding tools, when available.
11. Clear all tools and obstructions from the path of the press and alert your co-workers before activating it.
12. Do not touch any moving parts of the press. The press should be disengaged and stopped completely before touching any operating part.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.

8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Disc Sander

1. Turn the switch to the "Off" position before connecting the sander to the power source.
2. Put all guards securely in place before connecting the sander to the power source.
3. Do not place the sander on the material to be sanded before starting the sander.
4. Inspect the back-up pad and disc to ensure they are securely fastened.
5. Inspect the grinding disc for defects such as cracks, breaks or grooves. Do not use if any of these conditions are present.
6. Do not install a sanding disc whose labeled RPM speed is lower than the rated speed of the sander.
7. When starting the sander, hold it away from your person in a protected place, such as under a workbench, until you have determined that it is operating safely.
8. After use, wait until the disc has fully stopped rotating and place the sander on its back or on a rubber stand. Disconnect it from the power source.
9. Do not hold a small piece of material in your hand to sand it.
10. Do not overload the sander by pushing it down onto the work piece. Allow the weight of the sander to supply the pressure.

Planer

1. Do not use the planer unless the cutting-head and feed-roll guards are in place.
2. Do not use stock that has loose knots or other defects.
3. Do not surface a piece of stock smaller than 10 inches or the distance between the rollers plus 2 inches.
4. Always stand to one side of the planer when it is in use.
5. Only make adjustments when the machine is at a "dead" stop.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable*, *Corrosive*, *Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:

- a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
 5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
 6. 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.
 7. Do not use chemicals from unlabeled containers and unmarked cylinders.
 8. Do not smoke while handling chemicals labeled “Flammable.”
 9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
 10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county’s respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.

8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn “Off” the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Electric Arc Welding

1. Obey all signs posted in the welding area.
2. Use the welding screen to shield other employees from flying slag and intense light.
3. Wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt and long pants when welding.
4. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
5. Do not change electrodes with bare hands; use dry welder’s gloves.

6. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

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.

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 whenever 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.

General Rules – Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.

9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

MAINTENANCE EMPLOYEES

Band Saws

1. If the material binds or pinches on the blade, turn the power switch of the band saw to the “Off” position and allow the blade to stop before attempting to back the work away from the blade.
2. If the saw blade breaks, follow this procedure:
 - a. Shut off the power.
 - b. Lock the start switch in the “Off” position.
 - c. Do not attempt to remove any part of the saw blade until the machine has completely stopped.
3. Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.
4. Do not use your hands to clear scraps around the cutting blade of the band saw – use the pusher stick.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it “Out of Service.”
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled “Type 1.”
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Lathe

1. Guard the cutting heads on metal lathes, whether rotating or not, before starting machine and after making adjustments or repairs to the lathe.
2. Do not use metal stock that is cracked or dented.
3. Before turning the power on, rotate the stock by hand to ensure that it turns freely. Stand to one side of the lathe when the power is first turned on.
4. Increase or decrease the speed of the lathe gradually to help prevent the metal stock from coming off the spindle.
5. The lathe should be started at the lowest speed.
6. Stop the lathe before attempting to measure the diameter of the metal stock.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3648 LIGHTING EQUIPMENT

PRODUCTION AND MAINTENANCE PERSONNEL

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.

2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Conveyors

1. Only conveyor-belt operators may operate the electric conveyor belts.
2. Do not jump onto, climb over, or ride on the conveyor.
3. Do not remove, alter, or bypass safety guards or devices when operating a conveyor belt.
4. Do not try to stop a work piece as it goes along the conveyor belt. If the machine gets jammed, turn the power switch to the "Off" position before clearing the jam.
5. Replace the guards before starting the conveyor and after making adjustments or repairs.

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.

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 whenever 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn “Off” the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.

4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

PRODUCTION AND MAINTENANCE PERSONNEL

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the "Off" or "Safe" position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.

- c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county's respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

Steel Drums

1. Roll a drum by pushing against the middle of the drum using both hands.
2. Use the cradle-type drum tilter when tilting drums.
3. Do not try to up-end a full drum by yourself.
4. Do not roll a full drum up a skid by yourself.
5. Chock both sides of a drum when storing the drum in a horizontal position.

PRODUCTION AND MAINTENANCE PERSONNEL

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.

11. Do not smoke while handling chemicals labeled “Flammable.”
12. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

SPRAY PAINTING AND SILK SCREENING PERSONNEL

Spray Painting and Silk Screening 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 before disconnecting them.
3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled “Flammable” or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.
6. Return containers of thinners, mineral spirits and other liquids labeled “Flammable” to the storage cabinet labeled “Flammable Storage,” when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the “On” position to operate the mechanical ventilation system before and during all spraying operations.

WAREHOUSE PERSONNEL

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.

4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. “Square up” and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.
6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.

6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the "On" position before operating the battery charger.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3691-92 STORAGE BATTERIES AND PRIMARY BATTERIES, DRY AND WET

PRODUCTION PERSONNEL

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Battery Handling and Storage

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers to "Off" position prior to connecting the cables to the battery posts.
3. Do not smoke in the battery-charging areas.
4. Leave flame-arrester vent caps in place, but remove non-flame arrester-vent caps and lay a cloth over the vent holes before charging the battery.
5. Do not stand directly over the battery when performing a "load" test.
6. Obey all "No Smoking" signs posted in the battery-charging areas.
7. Do not use a screwdriver to test the charge of a battery.

Chemicals/Hazardous Materials Safety

1. Do not add water to concentrated acid. The intense reaction should cause the acid to splash violently. To avoid such a reaction, upon authorization by your employer, slowly add the acid to the water.

Battery Charging/Recharging Safety

1. Turn the charger off by disconnecting the charger from its power source prior to connecting or disconnecting the battery from the charger.
2. Do not smoke or allow open flames and spark-producing devices in the vicinity of the battery-charging areas.
3. Only personnel, trained and authorized by their employer, are allowed to recharge a battery.
4. Keep the steel tray of an enclosed battery open throughout the entire recharging period.
5. Use a mating plug or employer-approved connector assembly when establishing connections between a battery and a charger.

Pin Machine Safety

1. Do not place your hand in the point of operation.

Conveyors

1. Only conveyor-belt operators may operate the electric conveyor belts.
2. Do not jump onto, climb over, or ride on the conveyor.
3. Do not remove, alter, or bypass safety guards or devices when operating a conveyor belt.
4. Do not try to stop a work piece as it goes along the conveyor belt. If the machine gets jammed, turn the power switch to the “Off” position before clearing the jam.
5. Replace the guards before starting the conveyor and after making adjustments or repairs.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Soldering Operations

1. Turn on the local exhaust-ventilation system before turning on the soldering machine or performing any soldering tasks except “spot” soldering.
2. Use a soldering iron only if the holder is insulated and non-combustible. Place the iron in a stand during standby.
3. Do not use the soldering iron on or over wooden surfaces.
4. Never use a soldering iron that has a loose barrel.
5. Do not pick up a solder tip from a tray with your fingers. Use a pair of needle nose pliers.
6. No eating, smoking, or drinking is permitted at the workstation.
7. Do not place flammable or combustible objects (e.g. paper, wood) on or near the hot iron.
8. Wear eye protection and heavy-duty temperature gloves when operating the wave-soldering machine.
9. Do not pick up parts after the hot solder is applied. Allow the part 1 to 2 minutes to cool before handling.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator’s cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.

4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on “soft” ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer’s approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. “Trial Lift” the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Housekeeping

1. Sweep up all scraps and debris from around assembly workstations and equipment such as drill presses, pin machines, or welding areas using a broom and a dustpan.
2. Keep charger leads off the floor and out of walkways to avoid tripping hazards.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
5. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
6. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.

2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.

9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

Hammers

1. Use a claw hammer for pulling nails.
2. Do not strike a hardened steel surface, such as a cold chisel, with a claw hammer.
3. Do not strike nails or other objects with the cheek of the 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 or a pry bar, or for pulling large spikes.
7. Use only the sledge type hammer on a striking face wrench.
8. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a handsaw, hold the work piece firmly against the worktable.

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

PRODUCTION PERSONNEL

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

Clamps

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

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.

Pliers

1. Do not use pliers as a wrench or a hammer.

2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

Electrical Safety

1. Do not use an electrical tool if its housing is cracked.
2. Do not use electrical tools while working from a metal ladder unless the ladder has rubber feet.
3. Turn the tool off before plugging or unplugging it.
4. Do not leave tools unattended that are "On."
5. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.
6. 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.
7. Do not carry equipment or tools by the cord.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.

21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

WAREHOUSE/SHIPPING AND RECEIVING PERSONNEL

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

- a. “Square up” and stop about 1 foot from the desired location.
- b. Level the forks and drive to the loading spot.
- c. Slowly lower the load to the floor.
- d. Tilt the forks slightly forward so you do not hook the load.
- e. 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.

8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator’s cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on “soft” ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer’s approval.

9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled "Flammable."
12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.

8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 3699
ELECTRICAL MACHINERY, EQUIPMENT AND SUPPLIES,
NOT ELSEWHERE CLASSIFIED**

MAINTENANCE, HOUSEKEEPING, AND MACHINE SHOP PERSONNEL

Housekeeping

1. Do not place materials such as scrap wire, trash bends, hand tools or any other material in walkways and passageways.
2. Sweep up shavings from around equipment such as drill presses, table saws, or shapers by using a broom and a dustpan.
3. Immediately mop up water around drinking fountains, drink dispensing machines and work floor.
4. Straighten or remove rugs and mats that do not lie flat on the floor.

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 your safety glasses, goggles or the face shield while operating power saws, grinders, lathes, sanders, or other machinery as required per employer and manufacturer's instructions.
4. Wear the face shield over your goggles or safety glasses during open-furnace, hot-dipping, metal-plating or gas-cutting operations.
5. Wear the chemical goggles when using, applying or handling chemical liquids or powders from containers labeled "Caustic" or "Corrosive."
6. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
7. Wear the welding helmet or welding goggles during welding operations.
8. Wear the di-electric gloves when working on electric current.
9. Wear your earplugs or earmuffs in areas posted "Hearing Protection Required."

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.

11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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

Hand Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

Clamps

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

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.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. If electrical: Place the breaker in the disconnect position.
4. If hydraulic or pneumatic: Close the upstream and downstream valves. Install blanks or plugs on the side of each valve closest to the equipment.
5. If gravity or mechanical: Secure equipment with chains, wedges, key blocks, adapter pins, or self-locking fasteners.
6. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
7. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.

- b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
8. Before restarting the equipment, verify the following:
- a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Wood Shop Safety

Personal Protective Equipment

1. Use lifelines, safety harnesses and lanyards when working higher than 6 feet off the ground.
2. Wear safety glasses, goggles or the face shield while operating table saws, grinders, lathes, sanders, or any other wood cutting machinery.
3. Wear a face or dust mask during dusty, cutting operations.
4. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that could get caught in moving parts.
5. Long hair should be contained under a hat or hair net, regardless of gender, while working in the kitchen.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the "On" position.
7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.
14. Cut away from your body and below your shoulder level when using a power saw.

15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the “Off” position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Painting Safety

1. Always wash your hands with soap and water after using paints. Do not use mineral spirits, paint thinner, acetone or any other toxic solvents to remove paint from your skin.
2. Store rags that have oil or paint on them in closed metal containers labeled “oily rags.”
3. Press the pressure relief valve on painting canisters and painting guns prior to disconnecting them.
4. Do not store food or eat where spray painting is being performed.
5. Close the lids of containers of paint and thinner tightly after each use or when not being used.

Glass Handling / Installation Safety

1. Do not use a screwdriver to open a case of glass. Use the mattock provided.
2. Lean each crate against a stationary object to prevent the glass from falling out when the crate is opened.
3. Do not attempt to catch a falling load of glass.
4. Remove or hammer down nails on packaging.
5. Do not stand under a suspended load of glass.
6. Do not pick up broken or cracked pieces of glass with your bare hands.
7. Do not carry glass under your arm.
8. Carry sheets of glass in a vertical position to the ground.
9. Do not place your hand in the center or hold edges and attempt to carry it parallel to the ground.
10. When working outside, do not install or remove glass during lightning storms, rain or windy weather.
11. Clean up all glass splinters or fragments after installation of glass.
12. Wear glass-handling gloves when moving, installing, handling, or loading glass.
13. Wear safety goggles or face shields when cutting, grinding, fabricating, polishing or sanding glass.
14. Wear a leather apron during glass cutting.

Production Personnel

Machine Shop Safety

Drills

1. Do not use dull, cracked or bent drill bits.
2. Physically check the security of the drill bit or cutting tool within the chuck prior to operation.
3. Keep your hands away from rotating parts.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it “Out of Service.”

3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

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.

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 whenever 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.

2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Optical Tech Safety

1. Wear safety goggles or face shields and a dust respirator or mask when cutting, grinding, fabricating, polishing or sanding glass.
2. Do not use a screwdriver to open a case of glass. Use the mattock provided.
3. Lean each crate against a stationary object to prevent the glass from falling out when the crate is opened.
4. Do not attempt to catch a falling load of glass.
5. Remove or hammer down nails on packaging.
6. Do not stand under a suspended load of glass.
7. Do not pick up broken or cracked pieces of glass with your bare hands.
8. Do not carry glass under your arm.
9. Clean up all glass splinters or fragments after installation of glass.
10. Wear glass-handling gloves when moving, installing, handling, or loading glass.
11. Wear a leather apron when performing glass-cutting operations.

Laser Tech Safety

1. Wear safety glasses appropriate to wavelength of laser being used.
2. Do not remove a lock from any equipment unless you placed it there yourself. Use your own lock /tag when required to isolate an energy source.
3. Do not start any adjustment, service or repair without verifying that the tag/locked out switch or control cannot be bypassed or overridden. Test the equipment to be certain that the locked-out switch is de-energized and not simply malfunctioning. Press all start buttons or valves to see if the equipment starts.
4. Ensure the system you should be working on is the same one that has been locked out.
5. Place all switches and breakers in the "Off" or "Safe" position or disconnect from the source.
6. Lockout or tagout all inline points of control. In most cases, this may be more than one place, or more than one lock, if several people are working on the equipment.
7. Leave all locks and tags in place until work is completely finished. A lock is never to be removed except by the person who placed it there.

Electro/Mechanical Assembler Safety

1. Point a hot glue gun only at material being assembled. Do not point a hot glue gun at a co-worker or yourself.
2. Do not drop items into solder pit.

Laser Test Tech / Electronic Test Tech Safety

1. Secure test site to avoid exposing yourself and your fellow employees to lasers or high voltage by:
 - a. Posting warning signs on door or area of entrance to test site;
 - b. Engaging the entrance test site lockout system;
 - c. Turning on audio or visual warning system(s).
2. Set and secure environmental controls as required per employer and federal standards and/or manufacturers' specifications.
3. Follow testing best practice guidelines and best practice guidelines as required per employer and federal standards and/or manufacturers' specifications.

Material Tech and Lab Personnel Safety

1. Review the Material Safety Data Sheets (MSDS) of all materials and/or chemicals prior to using them.

SHIPPING/RECEIVING OR STOCKROOM/WAREHOUSING PERSONNEL

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. “Square up” and stop about 1 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 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.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.

2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator’s cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on “soft” ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer’s approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.

16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Warehouse/Stockroom Safety

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled "Flammable."
12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.

4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Order-picker

1. Do not operate an order-picker without the operator's safety belt or lanyard in place.
2. Do not remove the safety belt or lanyard when the order-picker is in the raised position.
3. Do not allow personnel to stand under the order-picker while it is in the raised position.
4. Drive the order-picker at a walking pace.
5. Do not drive with the order-picker in the raised position.

Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.

5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when truck is being refueled.

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 delivery trucks.

Packaging

1. Wear protective gloves when building boxes for packaging.
2. When using tape dispenser, direct the cutting edge away from your body.
3. Slide all containerized packages or use hand trucks, pallet jack or other lifting aids.

Pneumatic Stapler

1. Do not discharge stapler unless it is touching the cardboard of the box being built.
2. Keep your free hand from behind the box flap being stapled.
3. If something or someone distracts you from your work, discontinue the stapling operation until it is safe to resume.

Conveyors

1. Only conveyor-belt operators may operate the electric conveyor belts.
2. Do not jump onto, climb over, or ride on the conveyor.
3. Do not remove, alter, or bypass safety guards or devices when operating a conveyor belt.
4. Do not try to stop a work piece as it goes along the conveyor belt. If the machine gets jammed, turn the power switch to the "Off" position before clearing the jam.
5. Replace the guards before starting the conveyor and after making adjustments or repairs.

GROUNDKEEPERS

Gasoline-Powered Lawn Maintenance Tools

1. Wear safety glasses, a dust mask and closed-toe shoes when operating any mower, edger, chain saw, line trimmer, or any other gasoline powered lawn maintenance tool.
2. Do not use a chain saw, lawn mower, or any other gasoline-powered lawn tool if you are taking medication from a container labeled "May cause drowsiness."
3. Read and follow the manufacturer's routine and preventive maintenance schedule posted on the workshop wall.
4. Do not use tools with parts that are loose, worn, cracked or otherwise visibly damaged.
5. Tag damaged tools "Out of Service" to prevent accidental start up or use.
6. Do not alter or bypass any safety device provided by the manufacturer.
7. Use only the grip locations, as specified by the manufacturer, as handholds when operating the unit.
8. Do not pour fuel into the tank of a running engine.
9. Do not smoke while servicing, using or refueling a gasoline-powered tool.
10. Keep body parts and clothing away from the running engine and the cutting blade.
11. Do not run a gasoline engine inside the storage shed.

12. Turn off the engine when you are not cutting or trimming.
13. Allow the engine to cool before performing maintenance or refueling.
14. Stop the engine and disconnect the spark-plug wire before cleaning, inspecting, adjusting or repairing cutting blades or other rotating parts.
15. Allow the engine to cool before covering or storing it in the storage shed.

Mowing

1. Before entering fenced back yards, check for dogs by shaking the gate. If a dog is present, ask the owner to restrain the dog until you finish your job; check again before entering.
2. Visually inspect the area to be mowed. Remove or mow around hazards such as tree stumps, roots, rocks, branches, sprinklers, hoses, electrical cords, light fixtures, pipes, clotheslines and toys.
3. Never bypass the kill switches on the mower handle.
4. Only the operator is permitted to ride on a riding mower.
5. Put the mower into neutral before starting or shutting off a riding power mower.
6. Do not place hands or feet under the mower deck.
7. Do not direct the grass discharge toward bystanders.
8. Empty the grass catcher to avoid clogging the mower.
9. Turn off the mower before dumping grass catcher or removing clogged grass from chute.
10. When using a riding mower, mow up and down the slope. Do not mow across a slope.
11. To mow across a slope, use an upright mower.
12. Keep the mower in gear when going down slopes.

Edging

1. Do not start an edger with the blade touching the ground.
2. Do not allow anyone to stand in front of, or on the unguarded side of the blade while the edger is in operation.
3. Operate the edger at full blade speed.
4. When edging along roads, driveways or parking lots, stay as close to the curb as possible.
5. Wear hardhat and face shield when operating a powered edger.

Line Trimming/Weed Eater/Brush cutters

1. Do not start the brush cutter if anyone is within 30 feet of it.
2. Place the brush cutter on firm ground or other solid surface in open area before starting it.
3. Before refueling, remove the trimmer from your harness, place the trimmer on the ground and allow the engine to cool.
4. Stop the brush cutter before putting it down.
5. Keep the tool clear of you when you are cutting.
6. Do not wrap the starter rope around your hand.
7. Do not allow the grip to snap back; guide the starter rope as it rewinds.
8. Hold the brush cutter with two hands and wear the harness.
9. Do not cut above waist level; use the tool at ground level.

Backpack Blowers

1. Read and follow the manufacturer's routine and preventive maintenance schedule posted on the storage closet wall.
2. Only use grip locations as specified by the manufacturer as a handhold when operating the blower.
3. Before refueling, remove the blower from your harness, place the blower on the ground and allow the engine to cool.
4. Do not pour fuel into the tank of a running engine.
5. Allow the engine to cool before performing maintenance or refueling.
6. Do not smoke while servicing, using or refueling the blower.
7. Do not use the blower to clean yourself.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3711 MOTOR VEHICLES AND MOTOR VEHICLE EQUIPMENT

PRODUCTION AND MAINTENANCE PERSONNEL

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.

6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.
6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.

12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the "On" position before operating the battery charger.

Jacks

1. Do not exceed the jack's rated lifting capacity as noted on the label of the jack.
2. Clear all tools, equipment and any other obstructions from under the vehicle before lowering the jack.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled "Flammable."
12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.

16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Bridge Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on "soft" ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer's approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

PRODUCTION AND MAINTENANCE PERSONNEL

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.

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 whenever 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.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn "Off" the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Electric Arc Welding

1. Obey all signs posted in the welding area.
2. Use the welding screen to shield other employees from flying slag and intense light.

3. Wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt and long pants when welding.
4. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
5. Do not change electrodes with bare hands; use dry welder's gloves.
6. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

3. Do not hammer on a file.

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Do not use a screwdriver to test the charge of a circuit.

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.

6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Clamps

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

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county’s respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

Band Saws

1. If the material binds or pinches on the blade, turn the power switch of the band saw to the “Off” position and allow the blade to stop before attempting to back the work away from the blade.
2. If the saw blade breaks, follow this procedure:
 - a. Shut off the power.
 - b. Lock the start switch in the “Off” position.
 - c. Do not attempt to remove any part of the saw blade until the machine has completely stopped.
 - d. Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.

3. Do not use your hands to clear scraps around the cutting blade of the band saw – use the pusher stick.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it “Out of Service.”
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled “Type 1.”
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Spray 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 before disconnecting them.
3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled “Flammable” or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.
6. Return containers of thinners, mineral spirits and other liquids labeled “Flammable” to the storage cabinet labeled “Flammable Storage,” when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the “On” position to operate the mechanical ventilation system before and during all spraying operations.

Sand Blasting Safety

1. Only blasters may use blasting equipment.
2. 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.
3. Do not use compressed air to clean equipment or yourself.

Lathe

1. Guard the cutting heads on metal lathes, whether rotating or not, before starting machine and after making adjustments or repairs to the lathe.
2. Do not use metal stock that is cracked or dented.
3. Before turning the power on, rotate the stock by hand to ensure that it turns freely. Stand to one side of the lathe when the power is first turned on.
4. Increase or decrease the speed of the lathe gradually to help prevent the metal stock from coming off the spindle.
5. The lathe should be started at the lowest speed.

6. Stop the lathe before attempting to measure the diameter of the metal stock.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Belt Sander

1. Align the sanding belt for proper tracking before plugging it into the power source.
2. Visually inspect the dust bag for tears, holes or other defects. Do not use the sander if any of the conditions are present.
3. Secure loose material to a flat surface before sanding.
4. Do not place the sander on the material to be sanded before starting the sander.
5. When job is completed, do not set the sander down until it has come to a complete stop.

Circular Saws

1. Disconnect the plug from the power supply when the circular saw is not being used, before changing blades, when making cutting depth or bevel adjustments, or when inspecting or cleaning the saw.
2. Do not use the circular saw if the lower guard does not close briskly and completely cover the saw blade.
3. Do not wedge or tie the lower guard of the circular saw “open.”
4. When pocket cutting, raise the lower guard of the circular saw by pulling the retracting lever.
5. Finger-tighten the depth and bevel adjustments before using the circular saw.
6. Do not use a washer or bolt to adjust the arbor size of the blade of the circular saw.
7. Grip the circular saw only by its handles when operating or transporting the saw.

Disc Sander

1. Turn the switch to the “Off” position before connecting the sander to the power source.
2. Put all guards securely in place before connecting the sander to the power source.
3. Do not place the sander on the material to be sanded before starting the sander.
4. Inspect the back-up pad and disc to ensure they are securely fastened.
5. Inspect the grinding disc for defects such as cracks, breaks or grooves. Do not use if any of these conditions are present.
6. Do not install a sanding disc whose labeled RPM speed is lower than the rated speed of the sander.
7. When starting the sander, hold it away from your person in a protected place, such as under a workbench, until you have determined that it is operating safely.

8. After use, wait until the disc has fully stopped rotating and place the sander on its back or on a rubber stand. Disconnect it from the power source.
9. Do not hold a small piece of material in your hand to sand it.
10. Do not overload the sander by pushing it down onto the work piece. Allow the weight of the sander to supply the pressure.

Scroll (Jig) Saw

1. Do not use the saw unless the table is firmly secured and it is in true alignment with the saw blade.
2. Before using the saw, all belts, pulleys, shafts and gears should be guarded.
3. Tighten the blade securely in the lower chuck and adjust it inline with the blade support.
4. Check the tension of the blade by turning the motor by hand. If “knocking” is heard, readjust the tension.
5. Firmly hold the stock and feed it at a moderate rate of speed into the blade.
6. Keep fingers and hands away from the path of the blade.
7. Before removing scraps, turn off the machine and wait until it has completely stopped.

Miter Box Saw (Motorized)

1. Do not use the saw unless the hood completely encloses the upper half of the saw blade, the arbor end or the points of operation. The hood should cover the lower portion of the blade in all positions.
2. Hold the material firmly against both the table and the fence.

Planer

1. Do not use the planer unless the cutting-head and feed-roll guards are in place.
2. Do not use stock that has loose knots or other defects.
3. Do not surface a piece of stock smaller than 10 inches or the distance between the rollers plus 2 inches.
4. Always stand to one side of the planer when it is in use.
5. Only make adjustments when the machine is at a “dead” stop.

Radial Arm Saws and Metric Cut Saws

1. Stop using the saw if the lower portion of the blade hood is not adjusting itself to the thickness of the material being cut as the blade passes through the material.
2. When cutting, pull the radial arm saw to the point necessary to complete the cut, release it, and then let it return to its stored position. If the saw movement is sluggish or hesitant and does not return to its stored position in a smooth and timely fashion, turn the power switch of the saw to “Off” and tag it “Out of Service.”
3. Allow the radial arm saw to return to its stored position before removing the stock from the table.
4. Lay the stock “squarely” and “solidly” on the table for crosscutting.
5. Use a clamp to secure cylindrical stock to the table before cutting the stock with a radial arm saw.
6. Use the anti-kickback device on the radial arm saw when used for ripping.
7. Use the spreader when ripping to prevent the wood from immediately coming back together and binding the blade.

8. Position the spreader directly in line with the blade.
9. Feed the material to be cut against the revolving blade from the side where the blade rotates upward.
10. Do not operate a radial arm or metric cut saw that does not have the saw stop in place or that has a worn fence.
11. Set the work piece securely against the back fence before beginning the cut.
12. Place the back fence as close to the blade cut line as possible.
13. Do not grab or grip the wood during the crosscutting operation; press the wood against the backstop with the palm of your hand.
14. Do not remove, alter or bypass the lower safety guard on the metric cut saw.

Router

1. Turn the router off and unplug it from the power source when changing the bit.
2. Point the router away from yourself and others, and do a test run to make sure the bit is secure.
3. Secure the material to be routed to a flat surface with clamps.
4. Hold the router with both hands when cutting the material.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3713 TRUCK AND BUS BODIES

PRODUCTION AND MAINTENANCE PERSONNEL

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

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

Picking Up a Load

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

Putting a Load Down

1. "Square up" and stop about 1 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 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.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.

5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Jacks

1. Do not exceed the jack's rated lifting capacity as noted on the label of the jack.
2. Clear all tools, equipment and any other obstructions from under the vehicle before lowering the jack.

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.

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 whenever 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.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled “Flammable.”
12. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Mobile/Bridge Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator’s cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on “soft” ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer’s approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.

16. “Trial Lift” the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Rigging Ropes, Cables and Chains

Ropes

1. Visually inspect ropes for broken strands, cuts, worn spots or any other damage. Do not use damaged ropes.

Wire Ropes and Cables

2. Follow your employer’s rigging inspection best practice guidelines.
3. Remove wire rope from service when any of the following
4. conditions exist:
 - a. Twelve broken wires in 1 lay of the hoist cable.
 - b. Four broken wires in a strand in 1 lay of the hoist cable.
 - c. Ten broken wires in a strand in 1 lay of a cable sling.
 - d. When “bird caging” is present.
 - e. When excess corrosion is present on the cable.
5. Wear leather work-gloves when handling wire ropes or cables.
6. Do not use wire ropes that are kinked.
7. Keep your hands away from the cable that is “feeding” a drum, pulley or sheave.

Housekeeping

1. Sweep up shavings from around equipment such as drill presses, lathes or planers by using a broom and a dust pan.
2. Do not store or leave items on stairways.
3. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
4. Straighten or remove rugs and mats that do not lie flat on the floor.
5. Return tools to their storage places after use.
6. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
7. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
8. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop-rags.
9. Store liquid containers labeled “Flammable” only in cabinets, rooms or buildings labeled “Flammable Storage.”
10. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.

Steel Drums

1. Roll a drum by pushing against the middle of the drum using both hands.
2. Use the cradle-type drum tilter when tilting drums.
3. Do not try to up-end a full drum by yourself.
4. Do not roll a full drum up a skid by yourself.
5. Chock both sides of a drum when storing the drum in a horizontal position.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn "Off" the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
4. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
5. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.

6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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 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 barrels, boxes, 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. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
11. 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 scraps, loose tools, tangled lines 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. Chock the wheels of the rolling scaffold, using the wheel blocks, and lock the wheels by using your foot to depress the wheel lock, before using the scaffold.

PRODUCTION AND MAINTENANCE PERSONNEL

Lockout/Tagout

1. NOTE: Devices such as padlocks should be provided for locking out the sources of power at the main disconnect switch. Before any maintenance, inspection, cleaning, adjusting or equipment servicing (hydraulic, electrical, mechanical or air) that requires entrance into, or close contact with, the machinery or equipment, the main power disconnect switch or valve, or both, controlling the source of its power or flow of material, should be locked-out or blocked off with a padlock, blank flange or similar device.
2. Do not perform any maintenance, inspection, cleaning, adjusting or servicing of any equipment without following the county's lockout / tagout program.

3. If required to work on powered equipment (hydraulic, electrical, air, etc.) you should have your personal padlock with your name on it and personal key on your person at all times.
4. Disconnect and padlock all machine power disconnects in the off position before removing guards for the purpose of working “On” or “In” the machinery or approaching its unguarded parts. (NOTE: When more than one employee is working on a single piece of equipment, each employee should use his or her own padlock along with lockout tongs to lock out the equipment. When the work is completed, he or she should remove only his or her lock.
5. Do not start equipment repair or maintenance work until you have verified the tagged/locked out switch or control cannot be overridden or bypassed.
6. Replace all guards before removing personal padlocks from the control.
7. Do not use or remove another employee’s protective lock. Do not remove a lock from equipment unless you placed it there.
8. Before machinery is put back into use after LOCKOUT/TAGOUT, give a verbal announcement or sound warning to fellow employees.

Confined Space

1. Do not perform confined-space operations until you have received initial indoctrination and training on the county’s permit space program, regarding your duties and responsibilities.
2. If respirators are required, do not perform any operations until trained in the specifics of the respirator protection program.
3. Obtain a confined-space entry permit from your supervisor before entering the space.
4. Lock and tag “OUT OF SERVICE” all impellers, agitators, pumps or any other equipment in the tank before entering the confined space.
5. Open all manholes to the space for ventilation.

Hearing Protection

1. Wear hearing protectors in work area’s posted “Hearing Protection Required.”
2. Inspect the hearing protectors for cleanliness before and after each use.
3. Store hearing protectors in a clean and sanitary location.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county’s respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Hydraulic/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 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.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Clamps

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

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

Lathes

1. Guard the cutting heads on metal lathes, whether rotating or not, before starting machine and after making adjustments or repairs to the lathe.
2. Do not use metal stock that is cracked or dented.
3. Before turning the power on, rotate the stock by hand to ensure that it turns freely. Stand to one side of the lathe when the power is first turned on.
4. Increase or decrease the speed of the lathe gradually to help prevent the metal stock from coming off the spindle.
5. The lathe should be started at the lowest speed.
6. Stop the lathe before attempting to measure the diameter of the metal stock.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

PRODUCTION PERSONNEL

Spray 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 before disconnecting them.
3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled "Flammable" or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.
6. Return containers of thinners, mineral spirits and other liquids labeled "Flammable" to the storage cabinet labeled "Flammable Storage," when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the "On" position to operate the mechanical ventilation system before and during all spraying operations.

Sand Blasting Safety

1. Only blasters may use blasting equipment.
2. 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.
3. Do not use compressed air to clean equipment or yourself.

Shear Brake Press, Milling Machine, Automatic Welders and Thermal Arc Welders

1. Replace the guards before starting machines, and after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Turn on local exhaust ventilation before turning on automatic welders or arc cutting machines.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3714 MOTOR VEHICLE PARTS AND ACCESSORIES

PRODUCTION AND MAINTENANCE PERSONNEL

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled "Flammable."
12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

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.

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 whenever 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn "Off" the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.

- c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
- d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
- e. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.

8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Clamps

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

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Hydraulic/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 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.

Lathe

1. Guard the cutting heads on metal lathes, whether rotating or not, before starting machine and after making adjustments or repairs to the lathe.
2. Do not use metal stock that is cracked or dented.
3. Before turning the power on, rotate the stock by hand to ensure that it turns freely. Stand to one side of the lathe when the power is first turned on.
4. Increase or decrease the speed of the lathe gradually to help prevent the metal stock from coming off the spindle.
5. The lathe should be started at the lowest speed.
6. Stop the lathe before attempting to measure the diameter of the metal stock.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it “Out of Service.”
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled “Type 1.”
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Riveting and Bolting

1. Do not use your hands to guide a bit into place when riveting or bolting steel.
2. Disconnect the snap and plunger from an air hammer when it is not in use.
3. Do not pass air-powered tools by the hose from one worker to another.
4. Do not throw material from one person to another. Use tag lines and a basket to hoist bolts, washers, drift pins, and tools.
5. Use a receptacle or a net to catch rivets or bolts that are knocked off or backed out from your work area.
6. Do not carry nuts, bolts, rivets, or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.

2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Conveyors

1. Only conveyor-belt operators may operate the electric conveyor belts.
2. Do not jump onto, climb over, or ride on the conveyor.
3. Do not remove, alter, or bypass safety guards or devices when operating a conveyor belt.
4. Do not try to stop a work piece as it goes along the conveyor belt. If the machine gets jammed, turn the power switch to the “Off” position before clearing the jam.
5. Replace the guards before starting the conveyor and after making adjustments or repairs.

Steel Drums

1. Roll a drum by pushing against the middle of the drum using both hands.
2. Use the cradle-type drum tilter when tilting drums.
3. Do not try to up-end a full drum by yourself.
4. Do not roll a full drum up a skid by yourself.
5. Chock both sides of a drum when storing the drum in a horizontal position.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county's respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

Hearing Protection

1. Wear hearing protectors in work area's posted "Hearing Protection Required."
2. Inspect the hearing protectors for cleanliness before and after each use.
3. Store hearing protectors in a clean and sanitary location.

JOB SPECIFIC RULES – PRODUCTION PERSONNEL

Laboratory Safety

1. Turn on local exhaust ventilation before starting any procedure.
2. Separate all toxic substances in a well-identified area with local exhaust ventilation.
3. Avoid skin contact with all chemicals. Do not smell or taste chemicals.
4. Do not store chemicals on bench tops. Store only small amounts in the laboratory at anytime. Do not store chemicals near heat source or direct sunlight.
5. Inspect and test the emergency eyewash fountain, drench showers and fire extinguishers every month.
6. Keep the work area clean and uncluttered of chemicals and equipment. Clean up the work area on completion of an operation.
7. Do not eat, drink, smoke, chew gum, or apply cosmetics in areas where laboratory chemicals are present.
8. Do not store food or beverages in laboratory storage areas or refrigerators.
9. Do not use mouth suction for pipeting or starting a siphon.
10. Confine long hair and loose clothing. Wear shoes at all times, but do not wear sandals, perforated shoes, or sneakers in the laboratory.
11. Remove all protective clothing or equipment before leaving the laboratory. Place it in the appropriately labeled container.

Spray 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 before disconnecting them.
3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled "Flammable" or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.

6. Return containers of thinners, mineral spirits and other liquids labeled “Flammable” to the storage cabinet labeled “Flammable Storage,” when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the “On” position to operate the mechanical ventilation system before and during all spraying operations.

Band Saws

1. If the material binds or pinches on the blade, turn the power switch of the band saw to the “Off” position and allow the blade to stop before attempting to back the work away from the blade.
2. If the saw blade breaks, follow this procedure:
 - a. Shut off the power.
 - b. Lock the start switch in the “Off” position.
3. Do not attempt to remove any part of the saw blade until the machine has completely stopped.
4. Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.
5. Do not use your hands to clear scraps around the cutting blade of the band saw – use the pusher stick.

Safe Handling Best practice guidelines for Energetics

1. Do not use blasting agents, blasting supplies, or other materials labeled "Explosives" that are leaking, visibly deteriorated or otherwise visibly damaged.
2. Do not store blasting caps in the same box, container or magazine, along with other materials labeled "Explosives" that are not being used.
3. Do not leave blasting caps exposed to the direct rays of the sun.
4. Lock up all materials labeled "Explosives" that are not being used in the cabinet appropriately marked cabinet.
5. Do not wear jewelry such as watches, bracelets or chains when portioning out quantities of energetic materials.

DELIVERY PERSONNEL

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

WAREHOUSE PERSONNEL

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Hand Truck Safety

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

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.

- f. Fluid is leaking from the lift or the tilt cylinders.
- g. The hardware on the cylinders is loose.
- h. The tires are excessively worn or split, or have missing tire material.
- i. Air-filled tires are not filled to the operating pressure indicated on the tire.
- j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. “Square up” and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.

6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.
6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the "On" position before operating the battery charger.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3721 AIRCRAFT

ENGINEERING

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

MANUFACTURING

Steel Drums

1. Roll a drum by pushing against the middle of the drum using both hands.
2. Use the cradle-type drum tilter when tilting drums.
3. Do not try to up-end a full drum by yourself.
4. Do not roll a full drum up a skid by yourself.
5. Chock both sides of a drum when storing the drum in a horizontal position.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on "soft" ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer's approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

MANUFACTURING

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn “Off” the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Hydraulic/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 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.

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.

Use of Cylinders

1. Do not use dented, cracked or other visually damaged cylinder.
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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel using your hand, even if you are wearing gloves. To prevent your gloves from getting caught by the grinding wheel, hold the work-piece by using vice-grip pliers, clamps, or a jig.
4. Adjust the tongue guard so it is no more than 1/8-inch from the grinding wheel.

Solvents and Cutting Fluids

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. When using chemicals labeled *flammable*, *corrosive*, *caustic*, or *poisonous*, use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear.
3. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other signs of visible damage.
4. Always wash your hands with soap and water after using cutting fluids or solvents.
5. 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 your gloves.
6. Only dispense liquid labeled "flammable" from its bulk container located in areas posted "flammable liquid storage."
7. Do not use chemicals from unlabeled containers
8. Do not perform "hot work," such as metal cutting or other spark-producing operations, within 50 feet of containers labeled "flammable" or "combustible."

ASSEMBLY

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and them 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.

16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Riveting and Bolting

1. Do not use your hands to guide a bit into place when riveting or bolting steel.
2. Disconnect the snap and plunger from an air hammer when it is not in use.
3. Do not pass air-powered tools by the hose from one worker to another.
4. Do not throw material from one person to another. Use tag lines and a basket to hoist bolts, washers, drift pins, and tools.
5. Use a receptacle or a net to catch rivets or bolts that are knocked off or backed out from your work area.
6. Do not carry nuts, bolts, rivets, or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.

Battery Shop

1. Do not lay tools or metal parts on top of a battery.
2. Turn the fan motor selector switch to the "On" position before operating the battery charger. Turn the power switch of the battery charger to "Off" prior to connecting the cables to the battery posts.
3. Do not smoke in the battery-charging areas.

FINISHING

Painting

1. Spray paint operators should use respirators provided by their supervisors for their assigned duties.
2. Wear goggles, gloves, face shields, long-sleeve shirts, and long pants while spray painting is being performed.
3. Always wash your hands with soap and water after using paints; do not use acetone or toxic solvents to remove paint from your skin.

4. Press the pressure-relief valve on painting canisters and painting guns prior to disconnecting them.
5. Do not store food or eat where spray painting is being performed.
6. Close the lids of containers of paint and thinner tightly after each use.

TESTING

Fueling Operations

1. Do not fuel or defuel aircraft while engines are running or are being warmed by external heat.
2. Do not fuel or defuel any aircraft inside any building.
3. Do not perform repairs to aircraft during defueling or refueling.
4. Do not switch any electrical appliances on or off during refueling or defueling.
5. Do not drive the refueler in reverse unless a “spotter” is guiding the backing operation.
6. Do not operate a fueling vehicle on a taxiway or runway.
7. Park fuel trucks at least 10 feet from each other.
8. Do not fuel or defuel any aircraft during a thunderstorm.
9. Do not carry lighters or matches while performing fuel-servicing operations.
10. Do not operate a radio transmitter or receiver during refueling or defueling operations.
11. Clean up fuel spills immediately by using sand, absorbent brooms, sweeps, pads, blankets, and pillows.
12. Do not perform fueling operations or start aircraft engines within 50 feet of a fuel spill, or other volatile fluids that are on the ground.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 3822
AUTOMATIC CONTROLS FOR REGULATING RESIDENTIAL
AND COMMERCIAL ENVIRONMENTS AND APPLIANCES**

PRODUCTION EMPLOYEES

Band Saws

1. If the material binds or pinches on the blade, turn the power switch of the band saw to the “Off” position and allow the blade to stop before attempting to back the work away from the blade.
2. If the saw blade breaks, follow this procedure:
 - a. Shut off the power.
 - b. Lock the start switch in the “Off” position.
 - c. Do not attempt to remove any part of the saw blade until the machine has completely stopped.
3. Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.
4. Do not use your hands to clear scraps around the cutting blade of the band saw – use the pusher stick.

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.

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 whenever 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.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Ergonomics

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

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.

- j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.

2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.
6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the "On" position before operating the battery charger.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."

3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.

5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Heat Gun (Glue Gun)

1. Do not expose any body part to the heat source of the gun.
2. Place the gun in a holder or on an insulated material after use.
3. Pick up the gun by the handle, not by the shaft.
4. Keep hands clear of “barrel opening” when operating the heat gun.

Hand Truck Safety

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

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.

8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Soldering Operations

1. Turn on the local exhaust-ventilation system before turning on the soldering machine or performing any soldering tasks except “spot” soldering.
2. Use a soldering iron only if the holder is insulated and non-combustible. Place the iron in a stand during standby.
3. Do not use the soldering iron on or over wooden surfaces.
4. Never use a soldering iron that has a loose barrel.
5. Do not pick up a solder tip from a tray with your fingers. Use a pair of needle nose pliers.
6. No eating, smoking, or drinking is permitted at the workstation.
7. Do not place flammable or combustible objects (e.g. paper, wood) on or near the hot iron.
8. Wear eye protection and heavy-duty temperature gloves when operating the wave-soldering machine.
9. Do not pick up parts after the hot solder is applied. Allow the part 1 to 2 minutes to cool before handling.

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.
4. Do not carry sheets of glass under your arm.

5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled “Flammable.”
12. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn “Off” the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.

- c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Electric Arc Welding

1. Obey all signs posted in the welding area.
2. Use the welding screen to shield other employees from flying slag and intense light.
3. Wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt and long pants when welding.
4. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
5. Do not change electrodes with bare hands; use dry welder's gloves.
6. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3824 FLUID METERS AND COUNTING DEVICES

PRODUCTION EMPLOYEES

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.

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.

Conveyors

1. Only conveyor-belt operators may operate the electric conveyor belts.
2. Do not jump onto, climb over, or ride on the conveyor.
3. Do not remove, alter, or bypass safety guards or devices when operating a conveyor belt.
4. Do not try to stop a work piece as it goes along the conveyor belt. If the machine gets jammed, turn the power switch to the "Off" position before clearing the jam.
5. Replace the guards before starting the conveyor and after making adjustments or repairs.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.

11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.

6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.

6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the "On" position before operating the battery charger.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.

8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.

3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Hydraulic/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 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.

Sand Blasting Safety

1. Only blasters may use blasting equipment.
2. 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.
3. Do not use compressed air to clean equipment or yourself.

Spray 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 before disconnecting them.
3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.

4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled “Flammable” or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.
6. Return containers of thinners, mineral spirits and other liquids labeled “Flammable” to the storage cabinet labeled “Flammable Storage,” when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the “On” position to operate the mechanical ventilation system before and during all spraying operations.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn “Off” the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Electric Arc Welding

1. Obey all signs posted in the welding area.
2. Use the welding screen to shield other employees from flying slag and intense light.
3. Wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt and long pants when welding.
4. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
5. Do not change electrodes with bare hands; use dry welder's gloves.
6. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county's respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

Hearing Protection

1. Wear hearing protectors in work area's posted "Hearing Protection Required."
2. Inspect the hearing protectors for cleanliness before and after each use.
3. Store hearing protectors in a clean and sanitary location.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the "Off" or "Safe" position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.

- b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
- a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

JOB SPECIFIC RULES

PRODUCTION EMPLOYEES

Machine Guarding Rules for: Hot Foil Machine and Engraver

1. Replace the guards, before starting machines, after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Read and obey safety warnings posted on or near any machinery.

Punch Presses and Press Brakes

1. Do not place hands in or near the point-of-operation.
2. Do not block, tie down, or hold down anyone of the two-handed controls.
3. Remove your foot from the foot pedal after each stroke of the ram.
4. Do not use any foot control that does not have foot-pedal covers to protect the pedal from 1) falling objects; or 2) anyone accidentally stepping on the pedal.
5. Do not place a foreign object (i.e. block, brick) on the foot-pedal control.
6. When a press brake or punch press has a partial revolution cycle, do not use the machine if it does not stop “cycling” when you remove your hands from the two-handed controls, or when you remove your foot from the foot-pedal control.
7. When a punch press has a partial revolution cycle, do not use the punch press if the stop control does not stop the punch press.
8. When a press brake or punch press has a full revolution cycle, do not use the machine if it continues to “cycle” more than once when holding the two-handed controls, or pressing the foot pedal.
9. 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.
10. Use hand-feeding tools, when available.
11. Clear all tools and obstructions from the path of the press and alert your co-workers before activating it.
12. Do not touch any moving parts of the press. The press should be disengaged and stopped completely before touching any operating part.

Impact Gun

1. Do not point the impact gun at anything other than the work piece.
2. Do not discharge the impact gun unless it is touching the surface of the work piece.
3. Keep your free hand out of the impact path on the work piece.
4. Do not use your free hand to hold the work piece.
5. Keep your eyes on your work. Stop working if

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3825 MEASURING AND TESTING ELECTRICAL SIGNALS

PLANT PERSONNEL

General

1. Wear eye protection such as safety glasses, face shield, goggles, magnifying lamp or microscope.

Soldering Operations

1. Turn on the local exhaust-ventilation system before turning on the soldering machine or performing any soldering tasks except “spot” soldering.
2. Use a soldering iron only if the holder is insulated and non-combustible. Place the iron in a stand during standby.
3. Do not use the soldering iron on or over wooden surfaces.
4. Never use a soldering iron that has a loose barrel.
5. Do not pick up a solder tip from a tray with your fingers. Use a pair of needle nose pliers.
6. No eating, smoking, or drinking is permitted at the workstation.
7. Do not place flammable or combustible objects (e.g. paper, wood) on or near the hot iron.
8. Wear eye protection and heavy-duty temperature gloves when operating the wave-soldering machine.
9. Do not pick up parts after the hot solder is applied. Allow the part 1 to 2 minutes to cool before handling.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
4. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
5. Do not place material such as boxes or trash in walkways and passageways.
6. Keep power cords away from path of vacuum cleaners and floor polishers.
7. Keep doors fully open or fully closed.
8. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
9. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.

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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

ASSEMBLY/WIRING PERSONNEL/ENGINEERING/ WIRE & COMPONENT PREP PERSONNEL

General

1. When assembling parts, use a magnifying glass to see what you are doing.
2. Do not extend working time, constant rapid muscular action, or fixed body positions for long periods. Take periodic breaks from working with hand tools by standing up and stretching.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.

15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

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

Mallets

1. Do not strike insertion tubes or other objects with the “cheek” of the mallet.
2. Do not strike one mallet against another mallet.
3. Do not use a mallet if your hands are oily, greasy or wet.

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.

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

HAND SET UP PERSONNEL (SILK SCREEN OPERATOR)

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you should 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,” “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. 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.
5. Before using the chemical exhaust hood, flip the fan motor switch to the “On” position.
6. Do not use chemicals from unlabeled containers or unmarked cylinders.
7. Do not drag containers labeled “Flammable.”
8. Do not store chemical containers labeled “Oxidizer” with containers labeled “Corrosive” or “Caustic.”

FINAL ASSEMBLY PERSONNEL

General

1. Do not point a charged compressed air hose at bystanders or use it to clean 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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.

Drills

1. Do not use dull, cracked or bent drill bits.
2. Physically check the security of the drill bit or cutting tool within the chuck prior to operation.
3. Keep your hands away from rotating parts.

SHIPPING AND RECEIVING DEPARTMENT PERSONNEL

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.

3. Do not operate a vehicle if you are taking medication whose container label indicates the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Hand Truck Safety

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

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.

10. 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.
11. Do not smoke while handling chemicals labeled “Flammable.”
12. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Ladder Usage

- a. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
- b. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
- c. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign “Detour.”
- d. Allow only one person on the ladder at a time.
- e. Face the ladder when climbing up or down.
- f. 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.
- g. Do not stand on the top two rungs of any ladder.
- h. When performing work from a ladder, face the ladder and do not lean backward or sideways from the ladder.
- i. Do not stand on a ladder that wobbles, or leans to the left or right.
- j. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
- k. Secure the ladder in place by having another employee hold it.
- l. Do not place ladders on boxes, concrete blocks, or other unstable bases.
- m. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.
- n. Do not move a rolling ladder while someone is on it.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.

- g. The hardware on the cylinders is loose.
- h. The tires are excessively worn or split, or have missing tire material.
- i. Air-filled tires are not filled to the operating pressure indicated on the tire.
- j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

- a. “Square up” and stop about 1 foot from the desired location.
- b. Level the forks and drive to the loading spot.
- c. Slowly lower the load to the floor.
- d. Tilt the forks slightly forward so you do not hook the load.
- e. When the path behind you is clear of obstructions, back straight out until the forks have cleared the pallet.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.

5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer’s load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.

4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

MACHINE SHOP/DRILLING DEPARTMENT PERSONNEL

General

1. Wear the welding helmet or welding goggles during welding operations.
2. Do not wear loose clothing or jewelry in the machine shop. Long hair should be contained under a hat or hair net, regardless of gender.

Lathe

1. Guard the cutting heads on metal lathes, whether rotating or not, before starting machine and after making adjustments or repairs to the lathe.
2. Do not use metal stock that is cracked or dented.
3. Before turning the power on, rotate the stock by hand to ensure that it turns freely. Stand to one side of the lathe when the power is first turned on.
4. Increase or decrease the speed of the lathe gradually to help prevent the metal stock from coming off the spindle.
5. The lathe should be started at the lowest speed.
6. Stop the lathe before attempting to measure the diameter of the metal stock.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

Grinding Wheels

1. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage; tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ring sound, do not use the wheel.
2. Do not use grinding wheels that have chips, cracks or grooves.
3. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
4. Adjust the tongue guard so it is no more than ¼-inch from the grinding wheel.
5. Adjust the tool rest so that it is no more than 1/8-inch from the grinding wheel.
6. Do not use a bench grinder if it is not firmly anchored to the workbench or other secure platform.

7. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.
9. Stand to one side of the plane of a rotating grinding wheel during the first few seconds of operation.
10. Grind on the side of the wheel only when it is made for side grinding.
11. Turn the grinding wheel “off” when you have finished working with it, and remain at the machine until it has completely stopped.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable*, *Corrosive*, *Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - (1) Only use red color-coded metal containers for transferring the liquid.
 - (2) Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Drills

4. Do not use dull, cracked or bent drill bits.
5. Physically check the security of the drill bit or cutting tool within the chuck prior to operation.

6. Keep your hands away from rotating parts.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn "Off" the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

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.

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 whenever 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.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 3826 LABORATORY ANALYTICAL INSTRUMENTS

PRODUCTION EMPLOYEES

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.

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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 whenever 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.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.

- j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.

4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.

6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the “On” position before operating the battery charger.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.

2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.

7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform "hot work," such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled "Flammable" or "Combustible."
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled "Flammable."
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop rags.

Heat Gun (Glue Gun)

1. Do not expose any body part to the heat source of the gun.

2. Place the gun in a holder or on an insulated material after use.
3. Pick up the gun by the handle, not by the shaft.
4. Keep hands clear of “barrel opening” when operating the heat gun.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer’s load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.

10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Soldering Operations

1. Turn on the local exhaust-ventilation system before turning on the soldering machine or performing any soldering tasks except "spot" soldering.
2. Use a soldering iron only if the holder is insulated and non-combustible. Place the iron in a stand during standby.
3. Do not use the soldering iron on or over wooden surfaces.
4. Never use a soldering iron that has a loose barrel.
5. Do not pick up a solder tip from a tray with your fingers. Use a pair of needle nose pliers.
6. No eating, smoking, or drinking is permitted at the workstation.
7. Do not place flammable or combustible objects (e.g. paper, wood) on or near the hot iron.
8. Wear eye protection and heavy-duty temperature gloves when operating the wave-soldering machine.
9. Do not pick up parts after the hot solder is applied. Allow the part 1 to 2 minutes to cool before handling.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled "Flammable."
12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.

15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

PRODUCTION AND MAINTENANCE EMPLOYEES

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

MAINTENANCE EMPLOYEES

Automatic Punch Press

1. Do not place hands in or near the point-of-operation.

2. 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.
3. Use hand-feeding tools, when available.
4. Clear all tools and obstructions from the path of the press and alert your co-workers before activating it.
5. Do not touch any moving parts of the press. The press should be disengaged and stopped completely before touching any operating part.

Band Saws

1. If the material binds or pinches on the blade, turn the power switch of the band saw to the “Off” position and allow the blade to stop before attempting to back the work away from the blade.
2. If the saw blade breaks, follow this procedure:
 - a. Shut off the power.
 - b. Lock the start switch in the “Off” position.
 - c. Do not attempt to remove any part of the saw blade until the machine has completely stopped.
3. Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.
4. Do not use your hands to clear scraps around the cutting blade of the band saw – use the pusher stick.

Belt Sander

1. Align the sanding belt for proper tracking before plugging it into the power source.
2. Visually inspect the dust bag for tears, holes or other defects. Do not use the sander if any of the conditions are present.
3. Secure loose material to a flat surface before sanding.
4. Do not place the sander on the material to be sanded before starting the sander.
5. When job is completed, do not set the sander down until it has come to a complete stop.

Lathes

1. Guard the cutting heads on metal lathes, whether rotating or not, before starting machine and after making adjustments or repairs to the lathe.
2. Do not use metal stock that is cracked or dented.
3. Before turning the power on, rotate the stock by hand to ensure that it turns freely. Stand to one side of the lathe when the power is first turned on.
4. Increase or decrease the speed of the lathe gradually to help prevent the metal stock from coming off the spindle.
5. The lathe should be started at the lowest speed.
6. Stop the lathe before attempting to measure the diameter of the metal stock.

Shears

1. Keep your hands and fingers away from the point of operation and nip points of the shears.
2. Use the next piece to be sheared or a tool or pry bar to move small pieces that are on the shear’s table and beyond the safeguarding.
3. Clear all tools and obstructions from the path of the shear and alert your coworkers before activating it.
4. When operating a power shear (i.e. hydraulic, pneumatic), turn off the power to the shear when leaving the shear.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 4225 GENERAL WAREHOUSING AND STORAGE

OFFICE PERSONNEL – SECRETARIES, ACCOUNTING CLERKS, SUPERVISORS

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to “off” and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

Step Stools

1. Allow only one person on the step stool at a time.
2. Face the step stool when climbing up or down.
3. When performing work from a step stool, face the step stool and do not lean backward or sideways from the step stool.
4. Do not place a step stool on boxes, books, or other unstable bases.
5. Do not stand on the top step of the step stool.

WAREHOUSE PERSONNEL – FORKLIFT OPERATORS, DOCK WORKERS, ORDER RETRIEVERS

General Warehouse Safety Rules

1. Wear warm clothing such as earmuffs, hats, gloves and coats when working in freezers or refrigerated trucks.
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. Do not close refrigeration doors without visually verifying that no one else is approaching the doorway.
4. Move slowly when approaching blind corners.
5. No jumping off docks or trailers. Use the stairs or a ramp.

Housekeeping

1. Use caution signs or cones to barricade slippery areas such as ice formation on the floor.
2. Do not place boxes or empty pallets in walkways and passageways.
3. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
4. Do not try to kick objects out of pathways. Push or carry them out of the way.
5. Do not let items overhang from shelves into walkways.
6. Place heavier loads on the lower or middle shelves.
7. Place items on shelves so that they lie flat and do not lean against each other.

Packaging and Crates

1. Remove or bend nails and staples from crates before unpacking.
2. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
3. When opening cartons use safety box cutters. Do not cut with the blade extended beyond the guard.

Handling Loads

1. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, pallet jacks and carts, or get assistance from a co-worker.
2. If assistance is required to perform a lift, coordinate and communicate your movements with those of your co-worker.
3. Wear protective gloves when lifting objects with sharp corners or jagged edges.
4. Move containerized items by pushing them rather than carrying them.
5. When manually stocking shelves, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.

Steel Drums

1. Roll a drum by pushing against the middle of the drum using both hands.
2. Use the cradle-type drum tilter when tilting drums.
3. Do not try to up-end a full drum by yourself.
4. Do not roll a full drum up a skid by yourself.
5. Chock both sides of a drum when storing the drum in a horizontal position.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.

3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.

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

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Order pickers

1. Do not operate an order picker without your safety belt or lanyard in place.
2. Do not remove your safety belt or lanyard when the order picker is in the raised position.
3. Do not allow any personnel to stand under the order picker while it is in the raised position.
4. Drive the order picker at a walking pace.
5. Do not drive with the order picker in the raised position.

MAINTENANCE PERSONNEL

General Safety Rules

1. Replace the guards before starting machines, after making adjustments or repairs.

2. Do not wear loose clothing or jewelry in the machine shop.
3. Long hair should be contained under a hat or hair net, regardless of gender.
4. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product used in your workplace.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Battery Handling and Storage

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers to "Off" position prior to connecting the cables to the battery posts.
3. Do not smoke in the battery-charging areas.
4. Leave flame-arrester vent caps in place, but remove non-flame arrester-vent caps and lay a cloth over the vent holes before charging the battery.
5. Do not stand directly over the battery when performing a "load" test.
6. Obey all "No Smoking" signs posted in the battery-charging areas.
7. Do not use a screwdriver to test the charge of a battery.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.

10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

DELIVERY PERSONNEL

Hand Truck Safety

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

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 4581 AIRPORTS, FLYING FIELDS AND AIRPORT TERMINAL SERVICES

FUELING OPERATIONS

General Safety Rules

1. Do not fuel or defuel aircraft while engines are running or being warmed by external heat.
2. Do not fuel or defuel any aircraft inside any building.
3. Do not fuel or defuel aircraft while passengers are on board unless a passenger-boarding device is in place at the cabin door of aircraft.
4. Do not perform repairs to aircraft during de-fueling or refueling.
5. Do not switch any electrical appliances on or off during refueling or de-fueling.
6. Do not drive the refueler in reverse unless a “spotter” is guiding the backing operation.
7. Do not operate a fueling vehicle on a taxiway or runway.
8. Park fuel trucks at least 10 feet from each other.
9. Do not fuel or defuel any aircraft during a thunderstorm.
10. Do not carry lighters or matches on your person while performing fuel-servicing operations.
11. Do not operate a radio transmitter or receiver during refueling or defueling operations.
12. Clean up fuel spills immediately by using sand, absorbent booms, sweeps, pads, blankets, and pillows.
13. Do not perform fueling operations or start aircraft engines within 50 feet of a fuel spill or other volatile fluids that are on the ground.

GROUNDKEEPERS

Gasoline-powered Lawn Maintenance Tools

1. Wear safety glasses, a dust mask and closed-toe shoes when operating any mower, edger, chain saw, line trimmer, or any other gasoline powered lawn maintenance tool.
2. Do not use a chain saw, lawn mower, or any other gasoline-powered lawn tool if you are taking medication from a container labeled “May cause drowsiness.”
3. Read and follow the manufacturer’s routine and preventive maintenance schedule posted on the workshop wall.
4. Do not use tools with parts that are loose, worn, cracked or otherwise visibly damaged.
5. Tag damaged tools “Out of Service” to prevent accidental start up or use.
6. Do not alter or bypass any safety device provided by the manufacturer.
7. Use only the grip locations, as specified by the manufacturer, as handholds when operating the unit.
8. Do not pour fuel into the tank of a running engine.
9. Do not smoke while servicing, using or refueling a gasoline-powered tool.
10. Keep body parts and clothing away from the running engine and the cutting blade.
11. Do not run a gasoline engine inside the storage shed.
12. Turn off the engine when you are not cutting or trimming.
13. Allow the engine to cool before performing maintenance or refueling.

14. Stop the engine and disconnect the spark-plug wire before cleaning, inspecting, adjusting or repairing cutting blades or other rotating parts.
15. Allow the engine to cool before covering or storing it in the storage shed.

Mowing

1. Before entering fenced back yards, check for dogs by shaking the gate. If a dog is present, ask the owner to restrain the dog until you finish your job; check again before entering.
2. Visually inspect the area to be mowed. Remove or mow around hazards such as tree stumps, roots, rocks, branches, sprinklers, hoses, electrical cords, light fixtures, pipes, clotheslines and toys.
3. Never bypass the kill switches on the mower handle.
4. Only the operator is permitted to ride on a riding mower.
5. Put the mower into neutral before starting or shutting off a riding power mower.
6. Do not place hands or feet under the mower deck.
7. Do not direct the grass discharge toward bystanders.
8. Empty the grass catcher to avoid clogging the mower.
9. Turn off the mower before dumping grass catcher or removing clogged grass from chute.
10. When using a riding mower, mow up and down the slope. Do not mow across a slope.
11. To mow across a slope, use an upright mower.
12. Keep the mower in gear when going down slopes.

Edging

1. Do not start an edger with the blade touching the ground.
2. Do not allow anyone to stand in front of, or on the unguarded side of the blade while the edger is in operation.
3. Operate the edger at full blade speed.
4. When edging along roads, driveways or parking lots, stay as close to the curb as possible.
5. Wear hardhat and face shield when operating a powered edger.

Line Trimming/Weed Eater/Brush cutters

1. Do not start the brush cutter if anyone is within 30 feet of it.
2. Place the brush cutter on firm ground or other solid surface in open area before starting it.
3. Before refueling, remove the trimmer from your harness, place the trimmer on the ground and allow the engine to cool.
4. Stop the brush cutter before putting it down.
5. Keep the tool clear of you when you are cutting.
6. Do not wrap the starter rope around your hand.
7. Do not allow the grip to snap back; guide the starter rope as it rewinds.
8. Hold the brush cutter with two hands and wear the harness.
9. Do not cut above waist level; use the tool at ground level.

Backpack Blowers

1. Read and follow the manufacturer's routine and preventive maintenance schedule posted on the storage closet wall.

2. Only use grip locations as specified by the manufacturer as a handhold when operating the blower.
3. Before refueling, remove the blower from your harness, place the blower on the ground and allow the engine to cool.
4. Do not pour fuel into the tank of a running engine.
5. Allow the engine to cool before performing maintenance or refueling.
6. Do not smoke while servicing, using or refueling the blower.
7. Do not use the blower to clean yourself.
8. Do not direct the blower toward bystanders.
9. When cleaning chicken-coop cooling fans, point the blower at the intake side of the fan.
10. Wear a dust mask and goggles when blowing down the chicken coops.

General Chain Saw Safety

1. Wear safety goggles, gloves, hearing protection, a hard hat, chaps and safety shoes while operating a chain saw.
2. When transporting a chain saw in a vehicle, keep the chain and the bar covered with a guard and secure the saw by tying it down with rope to prevent fuel spillage and damage.
3. When transporting a chain saw by hand, stop the engine, grip the saw handle, place the muffler at the side away from your body, and position the guide bar to the rear.
4. Do not remove the chain brake or alter handles, chain brake, chain or cover.
5. Always start a chain saw with a 10-inch or larger bar on the ground. Engage the chain brake, place one foot through the bottom handle, hold the top handle and pull starter rope.
6. Do not place a chain saw on your knee when starting it.
7. Always use both hands to maintain control of the chain saw.
8. When moving from tree to tree or cut to cut, activate the chain brake, remove your finger from the trigger and keep the bar away from your body.
9. Do not operate a chain saw above your shoulder height.
10. Keep the nose of the bar clear of other nearby objects during cutting to prevent kickback.
11. Do not set a saw down while the blade is engaged.
12. Stop the engine and turn the switch to "Off" when the chain saw is to be left unattended.
13. Tag damaged chain saws "Out of Service" to prevent accidental use.
14. Do not pour fuel into the tank of a running engine of a chain saw.
15. Do not smoke while servicing, using, or refueling a chain saw.
16. Keep your body parts and clothing away from the running engine and the cutting blade.
17. Allow the engine to cool before performing maintenance or before fueling.
18. Stop the engine and disconnect the spark-plug wire before cleaning, inspecting, adjusting, or repairing anything driven by the engine.

MAINTENANCE

Aircraft Electrical Systems

1. Do not test or operate radio transmitters or similar equipment in any aircraft that is within a hangar and has dynamotors running.
2. Use only electrical equipment and lighting systems labeled "Explosion Proof" within hangars and maintenance shelters.
3. Do not remove protective guards or shields from portable lamps.
4. Do not remove a lock or tag from equipment unless you put it there.

5. Do not wear jewelry when working on electrical circuits.
6. Do not work on circuits containing residual energy unless they are grounded, especially capacitors.
7. Make repairs to antennas only after de-energizing.
8. Do not repair weather radar or other types of radar emission systems in hangars until the systems are “locked and tagged” out.

Aircraft Operations

1. Turn on navigational lights when operating aircraft between sunset and sunrise and during rain, fog or other inclement weather conditions.
2. Turn on rotating beacons before starting aircraft auxiliary power units or aircraft engines.
3. Yield right of way to taxiing aircraft.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxygen 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 transport cylinders without first removing regulators and replacing the valve protection caps.
9. Do not store oxygen cylinders near fuel gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.
10. Do not hoist or transport cylinders by means of magnets or choker slings.

Use of Cylinders

1. Do not use dented, cracked or other visually damaged cylinder.
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.

FOOD SERVICE PERSONNEL

General Safety Rules

1. Wear eye protection, rubber gloves and apron when using an oven cleaner.
2. Do not position a heated pot or pan with the handle sticking out over the edge of a range, table or counter.
3. Do not fill pots, pans, buckets or cookers more than $\frac{2}{3}$ of the way full.
4. When adding ingredients to hot liquids, add small portions to prevent splashing.
5. Use the release valve to release pressure before opening pressurized steam kettles or pressure cookers.
6. Transport hot liquids in closed containers.
7. Clear a space on the prep table for placing hot food, before removing food from the oven.
8. Use carts for moving large hot items such as coffee urns, containers of hot water or containers of hot food.
9. To prevent movement while removing items, use the wheel-locking lever of the cart to lock the cart’s wheels.

10. Turn off gas supply and electrical current for appliances when they are not in use.
11. Do not handle frozen items from freezers and hot items from stoves when your hands are wet or bare. Use pot holders, baking gloves, or heat resistant pads.
12. Pick up broken glass by using a broom and a dust pan.
13. If glassware breaks in the sink, use tongs to remove the large fragments of glass; open the drain; run the water to wash any remaining small glass fragments down the drain.
14. Do not put your hands inside the mixing bowl while the mixing bowl and mixer are in operation.
15. Use the stomper to push meat through the grinder attachment of a mixer.
16. Do not attempt to clean a hot oven, hot heating elements, or a hot quartz lamp.
17. Wear heat resistant gloves when cleaning grills.
18. When using knives, cut in a direction away from your body.
19. Carry and store all sharp tools in a sheath, holster, or drawer.
20. Replace the guards on the bread slicing machine, meat slicing machine, and other slicing equipment after making adjustments or repairs.
21. Do not stop looking at what you are slicing, while you are using a slicer.
22. Do not place your hand on top of the blade guard while you are operating the slicer.
23. Turn the power switch of the slicer to “off” and unplug it when it is not being used.
24. Wear a wire mesh glove when cleaning the exposed edge of the slicer blade.
25. Do not use a knife as a pry bar, screwdriver, can opener, or ice pick.
26. Keep all blades of cutting tools sharp.
27. Do not try to catch a knife if it is falling or slipping. Get out of the way.
28. When handling and opening a bottle, grip the bottle firmly near its base, not its stem.

FOOD CATERING PERSONNEL – SUBCONTRACTOR(S)

1. Wear leather gloves when handling metal galley units.
2. Do not leave galley units unattended in aisles.
3. Close galley compartment doors after servicing.
4. When inserting or removing ovens, tray holders or other food units, wear gloves or use hand pads, towels, or heat resistant pads.
5. Do not lower a high-lift food truck until all employees have moved from beneath it.
6. Chock wheels on galley units that are on aircraft or food trucks so they should not move.
7. Use a permanent mounted ladder or use the steps attached to the vehicle when boarding a high-lift truck or when boarding the vehicle itself.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 4953 REFUSE SYSTEMS

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

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, stable, mobile, swivels and allows operator movement.
3. Adjust your seat height so your knees are about the same level as your hips.
4. Sit straight up in your chair. Where needed, use a footrest that has an adjustable height and is large enough to allow operator movement.
5. Adjust your computer screen and keyboard so they are directly in front of you.
6. Place the keyboard low enough so operator is not required to reach up or out to the keys.
7. Keep wrists and hands in a straight position while key stroking by keeping forearms parallel to the floor and elbows at your sides.
8. Select low frequency vibratory tools and tools that bend at the handle.
9. Select tools by weight for the task to distribute pressure evenly over the hand, to fit your hand size, and to provide a handle that accommodates a relaxed grip position.

MAINTENANCE/EQUIPMENT REPAIR PERSONNEL

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the "Off" or "Safe" position.

3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

MATERIAL HANDLING PERSONNEL – SORTING/TIPPING FLOOR

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on "soft" ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer's approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Conveyor Operation (Recycling/Sorting Area)

1. Never attempt to repair or adjust a moving conveyor.
2. Do not operate a conveyor unless all machine guards are in place.
3. Never take a "short cut" by walking across a moving conveyor.
4. Do not work on or around a moving conveyor when you are wearing jewelry or loose-fitting clothing.
5. Never obstruct the area around an "emergency stop" button, or hang anything on the button.
6. Before starting or restarting a conveyor, give a verbal command such as "move away from machine."
7. Wear your gloves and safety glasses when engaged in the sorting operation.
8. Do not use gloves that are torn, cut or punctured.
9. Wear your earplugs or earmuffs in areas posted "Hearing Protection Required."
10. Long hair should be contained under a hat or net, regardless of gender.
11. Do not pick up broken glass with your bare hands; always wear protective gloves.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.

6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.

5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.

4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Curbside Pick Up (Commercial/Residential)

1. Do not jump off the truck or out of the cab.
2. Do not step off the truck until it has come to a complete stop.
3. Look up and down the street before crossing.
4. Do not hinder your ability to hear instruction or warning sounds; do not use radio, tape player or CD headphones.
5. Never ride or sit in the garbage hopper at anytime.
6. Only stand on the area of the truck designed to accommodate passengers.
7. If issued a back belt, wear it at all times when working.
8. Bend at the knees, not at your back when lifting refuse containers.
9. Test the weight of the garbage container before lifting it by pushing the load along its surface; if heavy, ask for assistance from co-worker.
10. Stand clear of the mechanism, while the packer is in operation.
11. Press the emergency buzzer to alert the truck driver of any danger you anticipate or experience.
12. Do not push refuse into hopper with hand or foot.
13. Do not put refuse in hopper when hopper is full.
14. Never attempt to manipulate anything in or near the hopper while packer is in operation.
15. Never place any part of your body under the packer while packer is in operation.
16. Do not place any objects on the edge of the hopper, such as lumber or glass that could fly out and injure someone when packer is in motion.
17. Wash your hands, shower and change your clothes after you have finished working.

Truck Operators

1. Obey all traffic patterns and signs at all times.
2. Wear your seat belt at all times while driving the vehicle.
3. Maintain a three-point contact using both hands and one foot or both feet and one hand when climbing into and out of your vehicle.
4. Before operating your vehicle, visually inspect your footwear to verify it is free of mud, oil or any other slippery material to prevent slippage from pedals.

5. Do not, under any circumstances, move the truck until you can see your ground crew or spotter either by direct view or in your rear-view mirror.
6. Do not restrict the PTO (Power Take Off) control to the packer.
7. When performing commercial pick-up, stand clear of the winch mechanism after attaching the dumpster to the truck; stand to the side when operating the lever.

Handling Aggressive Dogs

1. Do not run away unless you are certain of quickly reaching a place of safety.
2. Stand still and face the animal to assert control.
3. While keeping your eyes on the dog, order the animal – in an authoritative tone of voice – to “stay” or “stand.”
4. Back away slowly while continuing to speak in a firm, calm voice.
5. Back against any available object to prevent an attack from the rear if more than one dog is present.
6. Call for the dog’s owner or handler.
7. Use your baton or billy club to strike the dog rather than throw anything at him.
8. Use your firearm if you are attacked, or if you have determined that your life is in danger.
9. Do not back a dog into a corner.

LANDFILL PERSONNEL

Landfill Sites

1. During a lightening storm, stop working and seek shelter.
2. When you are preparing to light the methane burners, check the wind direction before lighting the torch.
3. Do not wear clothing made of synthetic fibers when you are lighting the methane burner. Wear flameproof textiles. Extinguish the torch as soon as you have lit the methane burner.

Grader, Bulldozer, Compactor Operators

1. Before operating your vehicle, visually inspect your footwear to verify it is free of mud, or other slippery material to prevent slippage when mounting the vehicle or operating the foot pedals.
2. Do not reverse until you have looked behind you and verified that no one or another vehicle is in your path of travel.

TRANSFER STATION PERSONNEL

(GRIZZLER OPERATORS, WASTE ATTENDANTS, TRUCK DRIVERS)

General Safety

1. Wear your earplugs or earmuffs when you are operating the “grizzler”
2. Keep grizzler windows clean.
3. Do not leave grizzler unattended if you have a hoisted load in the air.
4. Replace the safety chain or barrier around the grizzler when the equipment is not in operation.
5. Signal person should wear safety vest and hardhat at all times when providing direction to equipment operator.
6. Do not walk or stand under an open tailgate.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 5031 LUMBER, PLYWOOD, MILLWORK AND WOOD PRODUCTS

PRODUCTION EMPLOYEES

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.

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 whenever 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.

Planer

1. Do not use the planer unless the cutting-head and feed-roll guards are in place.
2. Do not use stock that has loose knots or other defects.
3. Do not surface a piece of stock smaller than 10 inches or the distance between the rollers plus 2 inches.
4. Always stand to one side of the planer when it is in use.
5. Only make adjustments when the machine is at a "dead" stop.

Router

1. Turn the router off and unplug it from the power source when changing the bit.
2. Point the router away from yourself and others, and do a test run to make sure the bit is secure.
3. Secure the material to be routed to a flat surface with clamps.
4. Hold the router with both hands when cutting the material.

Staple Gun

1. When using a staple gun, keep your hands away from the point of operation.

Band Saws

1. If the material binds or pinches on the blade, turn the power switch of the band saw to the “Off” position and allow the blade to stop before attempting to back the work away from the blade.
2. If the saw blade breaks, follow this procedure:
 - a. Shut off the power.
 - b. Lock the start switch in the “Off” position.
 - c. Do not attempt to remove any part of the saw blade until the machine has completely stopped.
3. Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.
4. Do not use your hands to clear scraps around the cutting blade of the band saw – use the pusher stick.

Belt Sander

1. Align the sanding belt for proper tracking before plugging it into the power source.
2. Visually inspect the dust bag for tears, holes or other defects. Do not use the sander if any of the conditions are present.
3. Secure loose material to a flat surface before sanding.
4. Do not place the sander on the material to be sanded before starting the sander.
5. When job is completed, do not set the sander down until it has come to a complete stop.

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.

Circular Saws

1. Disconnect the plug from the power supply when the circular saw is not being used, before changing blades, when making cutting depth or bevel adjustments, or when inspecting or cleaning the saw.
2. Do not use the circular saw if the lower guard does not close briskly and completely cover the saw blade.
3. Do not wedge or tie the lower guard of the circular saw “open.”
4. When pocket cutting, raise the lower guard of the circular saw by pulling the retracting lever.

5. Finger-tighten the depth and bevel adjustments before using the circular saw.
6. Do not use a washer or bolt to adjust the arbor size of the blade of the circular saw.
7. Grip the circular saw only by its handles when operating or transporting the saw.

Disc Sander

1. Turn the switch to the “Off” position before connecting the sander to the power source.
2. Put all guards securely in place before connecting the sander to the power source.
3. Do not place the sander on the material to be sanded before starting the sander.
4. Inspect the back-up pad and disc to ensure they are securely fastened.
5. Inspect the grinding disc for defects such as cracks, breaks or grooves. Do not use if any of these conditions are present.
6. Do not install a sanding disc whose labeled RPM speed is lower than the rated speed of the sander.
7. When starting the sander, hold it away from your person in a protected place, such as under a workbench, until you have determined that it is operating safely.
8. After use, wait until the disc has fully stopped rotating and place the sander on its back or on a rubber stand. Disconnect it from the power source.
9. Do not hold a small piece of material in your hand to sand it.
10. Do not overload the sander by pushing it down onto the work piece. Allow the weight of the sander to supply the pressure.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.

6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.

6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the "On" position before operating the battery charger.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the "On" position.

7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.
14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the "Off" position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.

14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic or Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform "hot work," such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled "Flammable" or "Combustible."
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled "Flammable."
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop rags.

Hearing Protection

1. Wear hearing protectors in work area's posted "Hearing Protection Required."
2. Inspect the hearing protectors for cleanliness before and after each use.
3. Store hearing protectors in a clean and sanitary location.

Heavy Equipment Safety

1. Wear hard hats, hearing protection and safety goggles while operating heavy equipment.
2. Wear seat belts when operating scrapers, loaders, dozers, tractors and graders.
3. No passengers are permitted on heavy equipment.
4. Keep windows and windshield clean.

5. Do not use heavy equipment if its horn and backup alarm do not sound.
6. Do not crawl under the raised dump body during inspection of a dump truck.
7. Turn off the engine before leaving heavy equipment unattended.
8. Do not jump “Off” or “On” any heavy equipment.
9. Do not stay in the cab of haulage vehicles while the payload is being loaded or unloaded by cranes or loaders.
10. When finished using bulldozers or loaders, land the blade on the ground, set the brakes, turn off the power and shift the gear lever into neutral.
11. Keep heavy equipment in gear when going down grade. Do not use neutral.
12. Do not enter the bucket swing radius while the equipment is in operation.
13. Display the “Slow Moving Vehicle” sign when operating heavy equipment on roads.

Hydraulic/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 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.

Scroll (Jig) Saw

1. Do not use the saw unless the table is firmly secured and it is in true alignment with the saw blade.
2. Before using the saw, all belts, pulleys, shafts and gears should be guarded.
3. Tighten the blade securely in the lower chuck and adjust it inline with the blade support.
4. Check the tension of the blade by turning the motor by hand. If “knocking” is heard, readjust the tension.
5. Firmly hold the stock and feed it at a moderate rate of speed into the blade.
6. Keep fingers and hands away from the path of the blade.
7. Before removing scraps, turn off the machine and wait until it has completely stopped.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.

11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Miter Box Saw (Motorized)

1. Do not use the saw unless the hood completely encloses the upper half of the saw blade, the arbor end or the points of operation. The hood should cover the lower portion of the blade in all positions.
2. Hold the material firmly against both the table and the fence.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Radial Arm Saws and Metric Cut Saws

1. Stop using the saw if the lower portion of the blade hood is not adjusting itself to the thickness of the material being cut as the blade passes through the material.
2. When cutting, pull the radial arm saw to the point necessary to complete the cut, release it, and then let it return to its stored position. If the saw movement is sluggish or hesitant and does not return to its stored position in a smooth and timely fashion, turn the power switch of the saw to "Off" and tag it "Out of Service."
3. Allow the radial arm saw to return to its stored position before removing the stock from the table.
4. Lay the stock "squarely" and "solidly" on the table for crosscutting.
5. Use a clamp to secure cylindrical stock to the table before cutting the stock with a radial arm saw.
6. Use the anti-kickback device on the radial arm saw when used for ripping.

7. Use the spreader when ripping to prevent the wood from immediately coming back together and binding the blade.
8. Position the spreader directly in line with the blade.
9. Feed the material to be cut against the revolving blade from the side where the blade rotates upward.
10. Do not operate a radial arm or metric cut saw that does not have the saw stop in place or that has a worn fence.
11. Set the work piece securely against the back fence before beginning the cut.
12. Place the back fence as close to the blade cut line as possible.
13. Do not grab or grip the wood during the crosscutting operation; press the wood against the backstop with the palm of your hand.
14. Do not remove, alter or bypass the lower safety guard on the metric cut saw.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county's respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

Solvent/Dip Tanks/Parts Cleaner

1. Wear chemical goggles or face shield, neoprene gloves, rubber boots and apron when handling any chemical in the solvent tanks.
2. Turn on local-exhaust ventilation before starting.
3. Maintain good housekeeping and personal hygiene when working in or around the solvent tank area.
4. Do not eat, drink, smoke, chew gum, or apply cosmetics in the solvent tank area.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.

10. 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.
11. Do not smoke while handling chemicals labeled “Flammable.”
12. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.

7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

MAINTENANCE EMPLOYEES

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Jacks

1. Do not exceed the jack's rated lifting capacity as noted on the label of the jack.
2. Clear all tools, equipment and any other obstructions from under the vehicle before lowering the jack.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.

2. Turn the valve on the torch clockwise to turn “Off” the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Electric Arc Welding

1. Obey all signs posted in the welding area.
2. Use the welding screen to shield other employees from flying slag and intense light.
3. Wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt and long pants when welding.
4. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
5. Do not change electrodes with bare hands; use dry welder’s gloves.
6. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

PRODUCTION AND MAINTENANCE EMPLOYEES

Pneumatic Tackers/Nailers

1. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
2. Never point a pneumatic tacker/nailer at any person.
3. Do not tie back the safety switch on a pneumatic tacker/nailer gun to disengage the single action trigger.
4. Keep hands, legs, etc., clear of point of operation and impact while nailing/tacking.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 5032 BRICK, STONE AND RELATED CONSTRUCTION MATERIALS

PRODUCTION, MAINTENANCE AND WAREHOUSE EMPLOYEES

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.

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.

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 whenever 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.

Mobile/Bridge Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.

2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on "soft" ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not leave the crane you are working in unattended if you have a load suspended in the air.
9. Do not hoist loads over people.
10. Do not drive the crane on the road shoulders.
11. When operating a crane, follow only the signals of the person designated to give you signals.
12. Replace the belt, gear or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.

2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.
6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.

8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the “On” position before operating the battery charger.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.

14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.

5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Hand Truck Safety

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

Heavy Equipment Safety

1. Wear hard hats, hearing protection and safety goggles while operating heavy equipment.

2. Wear seat belts when operating scrapers, loaders, dozers, tractors and graders.
3. No passengers are permitted on heavy equipment.
4. Keep windows and windshield clean.
5. Do not use heavy equipment if its horn and backup alarm do not sound.
6. Do not crawl under the raised dump body during inspection of a dump truck.
7. Turn off the engine before leaving heavy equipment unattended.
8. Do not jump “Off” or “On” any heavy equipment.
9. Do not stay in the cab of haulage vehicles while the payload is being loaded or unloaded by cranes or loaders.
10. When finished using bulldozers or loaders, land the blade on the ground, set the brakes, turn off the power and shift the gear lever into neutral.
11. Keep heavy equipment in gear when going down grade. Do not use neutral.
12. Do not enter the bucket swing radius while the equipment is in operation.
13. Display the “Slow Moving Vehicle” sign when operating heavy equipment on roads.

PRODUCTION, MAINTENANCE AND WAREHOUSE EMPLOYEES

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer’s load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.

3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled "Flammable."
12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that

the medication may cause drowsiness or other side effects.

4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

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, or forklift, or get assistance from a co-worker to place dock plate resting between loading dock and truck surface.
4. If equipment or material 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.

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Confined Space

1. Do not perform confined-space operations until you have received initial indoctrination and training on the county's permit space program, regarding your duties and responsibilities.
2. If respirators are required, do not perform any operations until trained in the specifics of the respirator protection program.
3. Obtain a confined-space entry permit from your supervisor before entering the space.
4. Lock and tag "OUT OF SERVICE" all impellers, agitators, pumps or any other equipment in the tank before entering the confined space.
5. Open all manholes to the space for ventilation.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - c. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - d. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Hearing Protection

1. Wear hearing protectors in work area’s posted “Hearing Protection Required.”
2. Inspect the hearing protectors for cleanliness before and after each use.
3. Store hearing protectors in a clean and sanitary location.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.

- b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
- a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

MAINTENANCE EMPLOYEES

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.

4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn “Off” the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Electric Arc Welding

1. Obey all signs posted in the welding area.
2. Use the welding screen to shield other employees from flying slag and intense light.
3. Wear a welding helmet with filter plates and lenses, welding gloves, a long-sleeve shirt and long pants when welding.
4. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
5. Do not change electrodes with bare hands; use dry welder’s gloves.
6. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

PRODUCTION EMPLOYEES

Railroad Car Receiving and Unloading to Storage Area or Hopper

1. Do not begin loading or unloading until the railroad car has come to a complete stop.
2. Use wheel chocks to prevent railroad cars from moving during unloading and loading.

3. Attach the bridge or dock plate before driving the forklift into the railroad car.
4. Drive straight across the bridge plate when entering or exiting the railroad car.
5. Use dock lights or headlights when working in a dark railroad car.
6. Do not climb on hopper conveyor equipment.
7. Do not ride on hopper conveyor equipment.
8. When using a belt driven conveyor to load a trailer bed, the person inside the trailer should give verbal commands to the person loading the conveyor.

Crane Truck/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.

Excavation and Trenching Safety

1. Before excavating or digging a trench, determine where underground installations, such as sewer or electrical lines are in the area and the exact location.
2. Do not start work until barricades, barrier logs, or warning signs have been installed to isolate and alert others of the possible hazard.
3. Do not walk under platforms that bridge a trench.
4. Do not enter a trench unless you have been given permission by the competent person. Seek out and identify the designated "Competent Person" for the excavation site.
5. Use ladders, structural ramps, or stairways as means of access or egress, do not climb the shoring structure.
6. Do not climb a ladder unless it extends at least three 3 feet or three rungs beyond the edge of the trench.

Mixing/Loading of Product and Silo Storage

1. Do not hand-load mixing material in mixer. if protective grating is not in place.
2. Do not tamper with safety interlocks that should allow the mixer to run, with the grating removed.
3. Do not climb silo ladder in wet weather, or if the ladder rungs are slippery or wet.
4. Do not lean against the silo guardrails or perform any work on top of the silo, if the guardrails are not in place.
5. Only trained and authorized employees are allowed to work on the silo.

Rotary Kiln Operations

1. Do not enter the platform while the tire-feeding device is feeding tires into the kiln.
2. Do not climb or ride on the tire-feeding device.

3. Do not enter the tire feeding area while the device is in operation.
4. Flip the fan motor switch to the "On" position during kiln operations (furnace), crushing of rocks, grinding activities in the mill and production of dry powder.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 5033 ROOFING, SIDING AND INSULATION MATERIALS

PRODUCTION, MAINTENANCE AND WAREHOUSE PERSONNEL

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.

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 whenever 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.

Conveyors

1. Only conveyor-belt operators may operate the electric conveyor belts.
2. Do not jump onto, climb over, or ride on the conveyor.
3. Do not remove, alter, or bypass safety guards or devices when operating a conveyor belt.
4. Do not try to stop a work piece as it goes along the conveyor belt. If the machine gets jammed, turn the power switch to the “Off” position before clearing the jam.
5. Replace the guards before starting the conveyor and after making adjustments or repairs.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.

3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.
6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.

9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.
3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the "On" position before operating the battery charger.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.

15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.

7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.

10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform "hot work," such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled "Flammable" or "Combustible."
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled "Flammable."
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop rags.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

PRODUCTION AND MAINTENANCE PERSONNEL

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 should 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, or forklift, or get assistance from a co-worker to place dock plate resting between loading dock and truck surface.
4. If equipment or material 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/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.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 5063
ELECTRICAL APPARATUS AND EQUIPMENT,
WIRING SUPPLIES, AND CONSTRUCTION MATERIALS**

Lifting Best practice guidelines

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 should 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 a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

General Rules - Warehouse

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2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

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 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

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5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
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2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.

15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

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

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.

19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.

6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
4. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
5. Do not place material such as boxes or trash in walkways and passageways.
6. Keep power cords away from path of vacuum cleaners and floor polishers.
7. Keep doors fully open or fully closed.
8. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
9. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.

23. Turn the power switch to “off” and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

- a. “Square up” and stop about 1 foot from the desired location.
- b. Level the forks and drive to the loading spot.
- c. Slowly lower the load to the floor.
- d. Tilt the forks slightly forward so you do not hook the load.

- e. When the path behind you is clear of obstructions, back straight out until the forks have cleared the pallet.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.

3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Battery Handling and Storage

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers to “Off” position prior to connecting the cables to the battery posts.
3. Do not smoke in the battery-charging areas.
4. Leave flame-arrester vent caps in place, but remove non-flame arrester-vent caps and lay a cloth over the vent holes before charging the battery.
5. Do not stand directly over the battery when performing a “load” test.
6. Obey all “No Smoking” signs posted in the battery-charging areas.
7. Do not use a screwdriver to test the charge of a battery.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine has been turned off, the dock lock has been engaged and the wheels have been chocked.
3. Do not drive the forklift into the truck until the bridge or dock plate has been attached.
4. Do not drive the forklift into a truck bed that has “soft” or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer’s load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Carts

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

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.

11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Wire Pulling Machines and Wire Reel Holders

1. Use the brake-locking lever to lock down the brake to prevent movement of the machine while it is in operation.
2. Lock reel holders down on each side of the reel before starting wire-pulling operation.
3. The wire-pulling machine operator is the only person permitted in the area while the machine is in operation. The operator should remain to the rear of the machine during the wire-pulling operation.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 5065
ELECTRONIC PARTS AND EQUIPMENT, NOT ELSEWHERE
CLASSIFIED**

Lifting Best practice guidelines

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 should 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 a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

General Rules – Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable*, *Corrosive*, *Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - (1) Only use red color-coded metal containers for transferring the liquid.
 - (2) Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.

15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

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

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.

19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.

6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
4. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
5. Do not place material such as boxes or trash in walkways and passageways.
6. Keep power cords away from path of vacuum cleaners and floor polishers.
7. Keep doors fully open or fully closed.
8. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
9. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.

23. Turn the power switch to “off” and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

- a. “Square up” and stop about 1 foot from the desired location.
- b. Level the forks and drive to the loading spot.
- c. Slowly lower the load to the floor.
- d. Tilt the forks slightly forward so you do not hook the load.

- e. When the path behind you is clear of obstructions, back straight out until the forks have cleared the pallet.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.

4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Battery Handling and Storage

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers to “Off” position prior to connecting the cables to the battery posts.
3. Do not smoke in the battery-charging areas.
4. Leave flame-arrester vent caps in place, but remove non-flame arrester-vent caps and lay a cloth over the vent holes before charging the battery.
5. Do not stand directly over the battery when performing a “load” test.
6. Obey all “No Smoking” signs posted in the battery-charging areas.
7. Do not use a screwdriver to test the charge of a battery.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine has been turned off, the dock lock has been engaged and the wheels have been chocked.
3. Do not drive the forklift into the truck until the bridge or dock plate has been attached.
4. Do not drive the forklift into a truck bed that has “soft” or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Pallet Jacks

Only pallet jack operators may operate pallet jacks.

Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.

Do not leave the pallet jack unattended with the load suspended.

Do not use pallets or skids that are cracked or split or have other visible damage.

Do not ride on pallet jacks.

Start and stop the pallet jack gradually to prevent the load from slipping.

Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.

If your view is obstructed, use a spotter to assist in guiding the load.

Stop the pallet jack if anyone gets in your way.

Do not place your feet under the pallet jack when it is moving.

Keep your feet and other body parts clear of the pallet before releasing the load.

Carts

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

Hand Truck Safety

Tip the load slightly forward so the tongue of the hand truck goes under the load.

Push the tongue of the hand truck all the way under the load to be moved.

When loading hand trucks, keep your feet clear of the wheels.

Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.

Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.

Do not try to catch the load if it is falling or slipping. Get out of the way.

Do not walk backward with the hand truck, unless you are going up stairs or ramps.

When going down an incline, keep the hand truck in front of you so you can control it at all times.

Move hand trucks at a walking pace.

Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.

For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.

When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.

Store hand trucks with the tongue under a pallet, shelf, or table.

Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 7217 CARPET AND UPHOLSTERY CLEANING

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

IN-PLANT CLEANING PERSONNEL

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Respirators

1. Use the respirator provided by your supervisor for your assigned duties.
2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
3. Do not wear contact lenses when wearing a respirator.

4. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
5. Only use the respirator that has been issued to you.

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled “Flammable.”
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Equipment Safety

1. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
2. Read and obey safety warnings posted on or near any machinery.

Carpet Repair Tool Safety

1. Keep the blade of all cutting tools sharp.
2. Carry all sharp tools in a sheath or holster.

3. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
4. Do not use impact tools such as hammers, chisels, punches or steel stakes 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. Do not perform “make-shift” repairs to tools.
8. Do not throw tools from one location to another or from one employee to another.
9. Transport hand tools only in tool boxes or tool belts. Do not carry tools in your clothing.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 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 the load is tilted slightly backward for added stability.
6. Drive with the load at a ground clearance height of 4 to 6 inches at the tips, and 2 inches at the heels to clear most uneven surfaces and debris.
7. Drive at a walking pace and apply the brakes slowly when driving on slippery surfaces such as icy or wet floors.
8. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
9. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
10. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
11. Do not exceed a safe working speed of 5 miles per hour. Slow down in congested areas when driving the forklift.
12. Stay a minimum distance of three truck lengths from other operating mobile equipment.
13. Drive in reverse and use a signal person when the load blocks your vision.
14. Look in the direction you are driving; proceed when you have a clear path.
15. Do not drive the forklift while people are on the attached man-lift platform.
16. Drive unloaded forklifts in reverse when going up a ramp, and forward when going down a ramp.
17. Drive a loaded forklift in a forward gear when going up a ramp. Upon approaching the ramp, raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface.
18. Do not attempt to turn the forklift around on a ramp.
19. Do not use a gear for the opposite direction of travel as a means to slow down or stop the forklift.
20. Do not use “Reverse” as a brake for the forklift.

21. Lower the mast completely, turn the engine “Off” and set the parking brake before leaving your forklift.
22. Do not use bare forks as a man-lift platform.
23. Approach railroad tracks at a 45-degree angle when driving the forklift.
24. Steer the forklift wide when making turns.
25. Sound the forklift horn when approaching blind corners, doorways or aisles to alert other operators and pedestrians.

Picking Up a Carpet

1. Square up on the center of the carpet 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 carpet.
3. Level the forks and slowly drive forward until the carpet is resting against the backrest of the mast.
4. Lift the carpet high enough to clear whatever is under it.
5. Back up about 1 foot, and then slowly and evenly tilt the mast backward to stabilize the carpet.

Putting a Carpet Down

1. Square up and stop about 1 foot from desired location.
2. Level the forks and drive to the loading spot.
3. Slowly lower the carpet to the floor.
4. Tilt the forks slightly forward so you do not hook the carpet.

Hand Truck Safety

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

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.
5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

Carpet Carts

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

Lifting Equipment (Chains, Cables, Ropes, Slings)

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 hooks, not from the point.

ON-SITE CLEANING PERSONNEL

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.

6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Personal Protective Equipment

8. Do not wear hard hats that are dented or cracked.
9. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
10. Wear safety goggles when welding or soldering.
11. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
12. Wear the di-electric gloves when working on electric current.
13. Do not wear jewelry or coats with metal zippers to work.
14. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Respirators

6. Use the respirator provided by your supervisor for your assigned duties.
7. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
8. Do not wear contact lenses when wearing a respirator.
9. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
10. Only use the respirator that has been issued to you.

Hazardous Solutions and Solvents

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each solution or solvent product used in your workplace.
2. Do not use solutions or solvents from unlabeled containers and unmarked cylinders.
3. Do not store solution or solvent containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic."

Equipment Safety

Truck-mounted or Portable

1. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
2. Read and obey safety warnings posted on or near any machinery.
3. Only employer-authorized employees may operate cleaning equipment, truck-mounted or portable.

Carpet Repair Tool Safety

10. Keep the blade of all cutting tools sharp.
11. Carry all sharp tools in a sheath or holster.
12. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.

13. Do not use impact tools such as hammers, chisels, punches or steel stakes that have mushroomed heads.
14. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
15. When using knives, shears or other cutting tools, cut in a direction away from your body.
16. Do not perform “make-shift” repairs to tools.
17. Do not throw tools from one location to another or from one employee to another.
18. Transport hand tools only in tool boxes or tool belts. Do not carry tools in your clothing.

Equipment Safety

1. Replace the guards before starting machines, after making adjustments or repairs.
2. Do not wear loose clothing or jewelry in the equipment shop.
3. Read and obey safety warnings posted on or near any machinery.

Personal Protective Equipment

15. Do not wear hard hats that are dented or cracked.
16. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
17. Wear safety goggles when welding or soldering.
18. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
19. Wear the di-electric gloves when working on electric current.
20. Do not wear jewelry or coats with metal zippers to work.
21. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.

14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.

5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Vehicle/Driving Safety

11. Only employer-authorized personnel may operate any county vehicle.
12. Do not operate a vehicle if you are ill or fatigued.
13. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
14. Shut all doors and fasten seat belt before moving the vehicle.
15. Obey all traffic patterns and signs at all times.
16. Do not drive on the road shoulder.
17. Use side and rearview mirrors before making lane changes, turns and sudden stops.
18. Turn the vehicle off before fueling.
19. Do not smoke while fueling a vehicle.
20. Wash hands with soap and water if you spill gasoline on your hands.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 7342 PEST CONTROL SERVICES

OFFICE PERSONNEL

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.
9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.

8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to “off” and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

PEST CONTROL OPERATORS AND PEST CONTROL TECHNICIANS

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.

Vehicle Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.

4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when truck is being refueled.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

Pesticide and Fertilizer Spraying

1. Do not handle or spray pesticides if you have open cuts or scratches on exposed skin surfaces on your arms or hands.
2. Visually inspect the area to be sprayed for trip hazards, low branches, and clotheslines before beginning the job. Avoid these hazards as you spray.
3. Keep containers labeled "Pesticides" tightly closed when you have finished using them.
4. Do not transfer pesticides or fertilizers into an unmarked or unlabeled container.
5. Do not transport a pesticide container in the cab of a service vehicle.
6. Always spray downwind; do not stand downwind when others are spraying.
7. Do not smoke or carry smoking materials while handling or spraying from containers labeled "Pesticide" or "Fertilizer."
8. Wash pesticide-contaminated clothes separately from other clothing.
9. Carry fresh water and soap in the service vehicle when you are going to a pesticide or fertilizer-spraying job.
10. Remove work clothes immediately whenever clothing becomes soaked or wet with liquids from containers labeled "pesticide."
11. Walk through areas to be sprayed before spraying, and remove or "flag" low branches and clotheslines before spraying. Stand clear of these trip hazards as you spray.
12. Do not use empty or washed containers labeled "Pesticide" as eating or drinking containers.
13. At the end of the workday, spray operators should remove their work clothes and take a shower in the employee locker room before going home.
14. Refill the containers labeled "Hand wash," "Soap Cleanser" and "Drinking Water" that are on the service vehicles before going to a pesticide or fertilizer-spraying job. Do not drink from the "Hand wash" container; do not wash hands from the "Drinking Water" container.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled "Flammable."
12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

PEST CONTROL TECHNICIANS

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.

7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Carpentry

1. When ripping pressure treated wood, wear the respirator issued to you.
2. If you are working in a room where wood is being ripped, wear your dust mask to avoid breathing particles produced due to the ripping.
3. When nailing, grinding, or cutting, wear your safety goggles.

4. Do not remove floor tile until you have been told by your safety office whether or not the tile contains asbestos.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 7349
BUILDING CLEANING AND MAINTENANCE SERVICES**

OFFICE SAFETY

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

SALES PERSONNEL

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 delivery trucks.

Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when vehicle is being refueled.

JANITORIAL PERSONNEL

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable*, *Corrosive*, *Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:
 - (1) Only use red color-coded metal containers for transferring the liquid.
 - (2) Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
5. 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.
6. Do not use chemicals from unlabeled containers and unmarked cylinders.
7. Do not smoke while handling chemicals labeled "Flammable."

8. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
9. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Infection Control

1. Do not use gloves that are torn, cut or punctured.
2. Clean up any broken glass using a dust pan and broom. Do not pick up broken glass with your bare hands.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
4. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
5. Do not place material such as boxes or trash in walkways and passageways.
6. Keep power cords away from path of vacuum cleaners and floor polishers.
7. Keep doors fully open or fully closed.
8. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
9. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.

14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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. Do not force a screwdriver by using a hammer or pliers on it.
5. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
6. Use a screwdriver that has an insulated handle for electrical work.
7. Do not carry a screwdriver in your pocket.
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 circuit.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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. Store knives in knife blocks or in sheaths after using them.

4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled "Flammable."
12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

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 delivery trucks.

Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when vehicle is being refueled.

MAINTENANCE PERSONNEL

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable, Corrosive, Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:
 - (1) Only use red color-coded metal containers for transferring the liquid.
 - (2) Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
5. 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.
6. Do not use chemicals from unlabeled containers and unmarked cylinders.
7. Do not smoke while handling chemicals labeled "Flammable."
8. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
9. Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop rags.

Infection Control

1. Do not use gloves that are torn, cut or punctured.
2. Clean up any broken glass using a dust pan and broom. Do not pick up broken glass with your bare hands.

Housekeeping

1. Remove protruding nails or bend them down into the lumber by using a claw hammer.
2. Return tools to their storage places after use.
3. Do not use gasoline for cleaning purposes.
4. Use caution signs/cones to barricade slippery areas such as freshly mopped floors.
5. Dispose of glass tubes or bulbs in waste containers only labeled "Glass" or "Broken Glass."

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only 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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

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. Do not force a screwdriver by using a hammer or pliers on it.
5. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
6. Use a screwdriver that has an insulated handle for electrical work.
7. Do not carry a screwdriver in your pocket.
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 circuit.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.

13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Painting Safety

1. Always wash your hands with soap and water after using paints. Do not use mineral spirits, paint thinner, acetone or any other toxic solvents to remove paint from your skin.
2. Store rags that have oil or paint on them in closed metal containers labeled "oily rags."
3. Press the pressure relief valve on painting canisters and painting guns prior to disconnecting them.
4. Do not store food or eat where spray painting is being performed.
5. Close the lids of containers of paint and thinner tightly after each use or when not being used.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled "Flammable."
12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

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 delivery trucks.

Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.

4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when vehicle is being refueled.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 7532 AUTO BODY AND UPHOLSTERY

AUTO BODY AND PAINT TECHNICIAN

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.

16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.

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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it “Out of Service.”
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.

6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled “Type 1.”
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Frame Straightener

1. Remove grease and dirt build-up from the teeth of the frame-straightener clamps prior to placing a load on the jack.
2. Do not use the frame straightener if the chains are nicked or otherwise visibly damaged.
3. Wrap the chain around a frame member several times to ensure the chain should not slip when you pull. If the chain is twisted, untwist the chain by turning it clockwise or counterclockwise.
4. Use a wood block to pad the sharp corners where the chain is to be drawn around.
5. Have all co-workers stand clear of the jack before starting the pull.

Spray 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 before disconnecting them.
3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled “Flammable,” or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.
6. Return containers of thinners, mineral spirits and other liquids labeled “Flammable” to the storage cabinet labeled “Flammable Storage,” when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the “On” position to operate the mechanical ventilation system before and during all spraying operations.
9. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product used in your workplace.
10. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled Flammable, Corrosive, Caustic or Poisonous.
11. Before pouring, dispensing or transferring any liquid from a bulk container labeled “Flammable,” observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.

- iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
12. Do not perform “hot work,” such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
13. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
14. Each time you use your gloves, wash your gloves before removing them using cold tap water and hand-washing motion. Always wash your hands after removing the gloves.
15. Do not use chemicals from unlabeled containers and unmarked cylinders.
16. Do not smoke while handling chemicals labeled “Flammable.”
17. Do not use flammable liquids such as gasoline, acetone or paint thinner to clean floors.
18. Use only metal receptacles labeled “Oily Rags Only” for disposal of oily shop rags.

Respirators

1. Use the respirator provided by your supervisor for your assigned duties.
2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
3. Do not wear contact lenses when wearing a respirator.
4. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
5. Only use the respirator that has been issued to you.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 7533 AUTO EXHAUST SYSTEM SHOPS

AUTO REPAIR TECHNICIANS

Shop Safety

1. Wear safety goggles when working underneath vehicles or around solvents.
2. Do not take any cigarette lighters into the shop area.
3. Do not wear jewelry or loose clothing while working in the shop area.
4. Return tools to their storage places after use.
5. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons and protective eyewear, when using chemicals labeled “Flammable,” “Corrosive,” “Caustic” or “Poisonous.”
6. Do not use gasoline or thinners for cleaning purposes.
7. Wear your bump-cap when working underneath a vehicle.
8. Wear safety glasses or your full-face shield when working on a brake drum of an automobile.
9. Do not use air hoses to clean brake drums.
10. Wash down all brake drums and components with a liquid soap cleaning solution, or water, before removing them.
11. Follow these steps when handling hot automotive parts that have been removed from vehicles:
 - a. Pick up the part using gloves, heat resistant pads or dry rags.
 - b. Place hot parts such as loose pipes and mufflers in metal containers that are labeled “Hot Metal Parts, Only.”
12. Use a flexible exhaust hose to vent engine exhaust to the outside when the shop bay doors are closed.
13. Use a cord cover or tape the cord down when running electrical or other cords across aisles, between desks or across entrances/exits.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.

9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. “Blow out” hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

Automotive Lifts

1. Remove all tools, cords, hoses, trash and any other debris from the lift area and wipe up all grease and oil spills before driving a car or truck into your service bay.
2. Position the lift arms, adapters and supports to the center of the lift out of the way of the car’s tires before driving the vehicle into the service bay.

3. Do not stand in front of a vehicle being driven into the service bay.
4. Do not use any lift that has cracked contact pads, cracked lift arms or any other visible damage.
5. Do not use wood or concrete blocks as a substitute for an extender.
6. Use wheel blocks to chock the wheels of any vehicle on a runway lift while the vehicle is on the lift.
7. Do not leave the controls unattended while the lift is in motion.
8. Do not block or “tie open” the lift’s control while the lift is in motion.
9. Do not use the engine or transmission supports or stands as a substitute for jack stands.
10. If the vehicle begins to slip off of the lift, run in the opposite direction of the fall, but not toward a wall or workbench that might trap you between the object and the vehicle.
11. Before you lower the vehicle, remove tool trays, jack, engine and transmission stands, and any other obstruction from under the vehicle.
12. Before removing the vehicle from your service bay, position lift arms and supports to the center of the lift away from the wheels of the vehicles.
13. Do not “tie down” or override the air or control valves of the lift.
14. Do not raise vehicle with anyone inside it.
15. When raising a vehicle, use the following procedure:
 - a. Use the lift to raise the vehicle about 1 foot off the ground and moderately push the rear or front bumper of the vehicle to ensure the vehicle frame is stably mounted on the support’s contact pads of the lift.
 - b. If the frame of the vehicle is not firmly touching a support contact pad or slipping, immediately lower the vehicle and start over.
 - c. Once the vehicle is secure on the lift, lift the vehicle to the desired work height and visually check those contact points for misalignment before going under the vehicle.
 - d. As you raise the vehicle, you should hear a “clicking” noise that indicates the lift’s locking device is engaging. If you do not hear the “clicking” noise, stop the lift, fully lower the vehicle and use another lift. Place an “Out of Service” tag on the control switch of the damaged lift and do not use it.
 - e. If you should be working under a lift that should be positioned at a point below where the lift’s locking device engages, place four jack stands under the vehicle’s frame or suspension for additional support before working under the vehicle.
 - f. Wear safety goggles when working underneath vehicles.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 7534 TIRE RETREADING AND REPAIR

AUTO REPAIR TECHNICIANS: TIRE RETREADING AND REPAIR

Inspection and Repairs

1. Wear leather work gloves when inspecting the tire.
2. Use pliers, a claw hammer or a clawed device when removing nails, rocks, glass or other foreign materials from the tread.

Buffing

1. Wear your face shield or safety goggles when operating the buffer. Do not wear gloves.
2. Before changing the rasp blade, turn the power switch of the buffer to “Off” and unplug it from the power source.
3. Read and follow the manufacturer’s routine and preventive maintenance schedule posted on the workshop wall.
4. After buffing the tire, turn the power switch of the rasp and the hub to “Off” before removing the tire.
5. Keep your hands away from the rasp and the rotating buffing pads.
6. Turn the power switch of the rasp to “Off” before positioning the tire to be buffed.
7. Do not use chipped, dull or worn rasp blades.

Cementing

1. Turn the power switch of the mechanical ventilation system to “On” before cementing.
2. Do not smoke in the cementing booth.

Tread Application

1. Turn the power switch to “Off” and unplug the builder before making any adjustment or repairs to the builder.

Curing and Pre-Curing

1. Exhaust the air from the chamber by turning the switch of the exhaust ventilation to “On” before opening the door.
2. Two persons should move each tire into and out of the chamber.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.

6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Tire Service

1. Before removing the tire from the rim, completely deflate the tire by removing the valve core, using the valve core remover.
2. Do not use starting fluid, ether, gasoline or any other liquid from a container labeled “Flammable” to lubricate, seal or seat the beads of a tubeless tire.
3. Use only rubber, plastic or brass-tipped mallets to seat rim parts.
4. Do not strike a wheel- or rim-assembly with a hammer of any type.
5. Use the steel duck-bill hammer only as a wedge.
6. Use the rim mallet to strike the head of a hammer. Do not strike the head of a hammer with another hard faced hammer.
7. Use the non-flammable tire lubricant or tire sealant to demount and mount a tire.
8. If an emergency puncture or inflator device has been used, deflate and re-inflate the tire several times to remove remaining explosive propellant before servicing.
9. Wear your safety glasses when servicing rimmed wheels.
10. Do not use a tire tool for anything except mounting tires.
11. Use the positive lock-down device to hold the wheel on the tire machine before you attempt to inflate the tire. If tire is mounted on a machine that does not have a positive lock-down device, perform inflation in a safety cage.
12. Use an extension air hose with an air-pressure gauge to check the tire pressure. Do not inflate beyond 40 pounds of air pressure when trying to seat the beads. If both beads are not completely seated when pressure reaches 40 pounds, completely deflate the assembly, reposition the tire and/or tube on the rim, re-lubricate and re-inflate.
13. Inspect both sides of the tire to be sure the beads are evenly seated.
14. After the beads are fully seated, adjust the tire pressure to meet the operating pressure labeled on the tire sidewall.
15. Replace a tire on a rim with another tire of exactly the same rim diameter, designation and suffix letters.
16. Do not mount or use tires, tubes, wheels or rims that are split, cracked, cut or contain signs of other visible structural defects.
17. Wear leather gloves when removing rocks, glass and other foreign materials from the inside of the tire.
18. Do not mount a tire on a wheel rim that has molten metal scars or other signs that it has been repaired by welding or brazing.

Demounting

Follow this procedure to remove a tire from the wheel:

1. Place tire in the changer with the narrow ledge of the wheel facing up. Remove the valve core and allow the tire to deflate completely.
2. Center the wheel and securely fasten it onto the changer with the hold-down cone.
3. Loosen both tire beads from the rim flanges. Do not use force to separate the beads from the rim flange. If the beads do not readily separate from the rim flange, use the rubber-tire lubricant labeled “Non-Petroleum Based Lubricant” to lubricate the tire, and rotate tire to

another position and try again. Never use antifreeze, silicones, or petroleum-based lubricants.

4. After the beads are loosened from rim flanges, lubricate the inside of the wheel and both bead areas of the tire.
5. Use a tire iron to bring the bead of the tire onto the rotating finger of the tire changer. Hold the tire bead in the center wheel well during this operation. Do not use a pipe or a makeshift bar.
6. Start the tire changer to remove the top bead from the wheel.
7. Again use the rubber-tire lubricant labeled “Non-Petroleum Based Lubricant” to lubricate the tire beads and bead seat areas of the wheel including the drop-center well of the wheel.
8. Use a tire iron to raise the bottom bead and bring it over the rotating finger of the changer. Use your hip and hand to hold the side of the tire opposite the rotating finger down in the center well of the wheel.

Tire Handling

1. When loading or unloading tires to and from a vehicle, do not throw the tires off of the trucks; use the following best practice guidelines:
 - a. Bend at knees, grasp tire with two hands, elevate tire to upright position and carry the tire to the end of the truck.
 - b. Hand tire off to a co-worker.
2. Do not stack tires above your shoulder level.
3. When unstacking tires that are above your shoulder height, use two people to unstack down to shoulder height.
4. Carry tires with your hands. Do not carry more than two tires at a time. Do not roll tires.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.

- 20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.**
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.

6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 7536 AUTO GLASS REPLACEMENT

AUTO GLASS TECHNICIANS

Shop Safety

1. Wear safety goggles when working underneath vehicles or around solvents.
2. Do not take any cigarette lighters into the shop area.
3. Do not wear jewelry or loose clothing while working in the shop area.
4. Return tools to their storage places after use.
5. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons and protective eyewear, when using chemicals labeled “Flammable,” “Corrosive,” “Caustic” or “Poisonous.”
6. Do not use gasoline or thinners for cleaning purposes.
7. Wear your bump-cap when working underneath a vehicle.
8. Wear safety glasses or your full-face shield when working on a brake drum of an automobile.
9. Do not use air hoses to clean brake drums.
10. Wash down all brake drums and components with a liquid soap cleaning solution, or water, before removing them.
11. Follow these steps when handling hot automotive parts that have been removed from vehicles:
 - a. Pick up the part using gloves, heat resistant pads or dry rags.
 - b. Place hot parts such as loose pipes and mufflers in metal containers that are labeled “Hot Metal Parts, Only.”
12. Use a flexible exhaust hose to vent engine exhaust to the outside when the shop bay doors are closed.
13. Use a cord cover or tape the cord down when running electrical or other cords across aisles, between desks or across entrances/exits.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign “Detour.”
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 7537 AUTO TRANSMISSION REPAIR

AUTO REPAIR TECHNICIAN

Shop Safety

1. Use the hydraulic jack when lowering a transmission from a vehicle. If you do not have a hydraulic jack, get a co-worker to help you lower the transmission.
2. The following best practice guidelines should be used for vehicles that have the full frame and transmission removed:
 - a. Do not work alone.
 - b. Place hydraulic jacks under both sides of the frame.
 - c. Place a hydraulic jack under the transmission
 - d. Once the hydraulic jacks are in place, lower the frame slowly.
 - e. Once the frame is lowered, lower the transmission.
 - f. Do not stand under the transmission or frame while they are being lowered.
3. Pick up hot automotive parts using protective gloves, heat resistant pads or dry rags.
4. Place the hot automotive parts in a metal container that is labeled "Hot Metal Parts Only."
5. Engage the parking brake and use the wheel blocks to chock the vehicle before starting the engine of the vehicle.
6. Wear a protective apron, gloves and safety goggles when charging a battery.
7. Wear leather gloves and respiratory protective device when removing clutches from vehicles.
8. Do not use compressed air to clean a transmission. Wash all disassembled transmission parts in a parts washer.
9. Use a flexible exhaust hose to vent engine exhaust to the outside when the shop bay doors are closed.
10. When grinding on a drive shaft, place the shaft in a vise grip to hold the shaft in place. If a vise grip is not available, get a co-worker to help you keep the shaft in place.
11. Do not point a compressed air hose at bystanders or use it to clean your clothing.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.

10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. “Bleed” oxygen and fuel lines at the end of the work shift.
12. “Blow out” the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it “Out of Service.”
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled “Type 1.”
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Automotive Lifts

1. Remove all tools, cords, hoses, trash and any other debris from the lift area and wipe up all grease and oil spills before driving a car or truck into your service bay.
2. Position the lift arms, adapters and supports to the center of the lift out of the way of the car’s tires before driving the vehicle into the service bay.
3. Do not stand in front of a vehicle being driven into the service bay.
4. Do not use any lift that has cracked contact pads, cracked lift arms or any other visible damage.
5. Do not use wood or concrete blocks as a substitute for an extender.
6. Use wheel blocks to chock the wheels of any vehicle on a runway lift while the vehicle is on the lift.
7. Do not leave the controls unattended while the lift is in motion.
8. Do not block or “tie open” the lift’s control while the lift is in motion.
9. Do not use the engine or transmission supports or stands as a substitute for jack stands.
10. If the vehicle begins to slip off of the lift, run in the opposite direction of the fall, but not toward a wall or workbench that might trap you between the object and the vehicle.
11. Before you lower the vehicle, remove tool trays, jack, engine and transmission stands, and any other obstruction from under the vehicle.

12. Before removing the vehicle from your service bay, position lift arms and supports to the center of the lift away from the wheels of the vehicles.
13. Do not “tie down” or override the air or control valves of the lift.
14. Do not raise vehicle with anyone inside it.
15. When raising a vehicle, use the following procedure:
 - a. Use the lift to raise the vehicle about 1 foot off the ground and moderately push the rear or front bumper of the vehicle to ensure the vehicle frame is stably mounted on the support’s contact pads of the lift.
 - b. If the frame of the vehicle is not firmly touching a support contact pad or slipping, immediately lower the vehicle and start over.
 - c. Once the vehicle is secure on the lift, lift the vehicle to the desired work height and visually check those contact points for misalignment before going under the vehicle.
 - d. As you raise the vehicle, you should hear a “clicking” noise that indicates the lift’s locking device is engaging. If you do not hear the “clicking” noise, stop the lift, fully lower the vehicle and use another lift. Place an “Out of Service” tag on the control switch of the damaged lift and do not use it.
 - e. If you should be working under a lift that should be positioned at a point below where the lift’s locking device engages, place four jack stands under the vehicle’s frame or suspension for additional support before working under the vehicle.
 - f. Wear safety goggles when working underneath vehicles.

**SAFETY BEST PRACTICE GUIDELINES FOR
SIC # 7539
AUTOMOTIVE REPAIR SHOPS, NOT ELSEWHERE CLASSIFIED**

PRODUCTION EMPLOYEES

Band Saws

1. If the material binds or pinches on the blade, turn the power switch of the band saw to the “Off” position and allow the blade to stop before attempting to back the work away from the blade.
2. If the saw blade breaks, follow this procedure:
 - a. Shut off the power.
 - b. Lock the start switch in the “Off” position.
 - c. Do not attempt to remove any part of the saw blade until the machine has completely stopped.
 - d. Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.
 - e. Do not use your hands to clear scraps around the cutting blade of the band saw – use the pusher stick.

Circular Saws

1. Disconnect the plug from the power supply when the circular saw is not being used, before changing blades, when making cutting depth or bevel adjustments, or when inspecting or cleaning the saw.
2. Do not use the circular saw if the lower guard does not close briskly and completely cover the saw blade.
3. Do not wedge or tie the lower guard of the circular saw “open.”
4. When pocket cutting, raise the lower guard of the circular saw by pulling the retracting lever.
5. Finger-tighten the depth and bevel adjustments before using the circular saw.
6. Do not use a washer or bolt to adjust the arbor size of the blade of the circular saw.
7. Grip the circular saw only by its handles when operating or transporting the saw.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the “On” position.
7. Keep your hands away from the exposed blade.

8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.
14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the "Off" position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Disc Sander

1. Turn the switch to the "Off" position before connecting the sander to the power source.
2. Put all guards securely in place before connecting the sander to the power source.
3. Do not place the sander on the material to be sanded before starting the sander.
4. Inspect the back-up pad and disc to ensure they are securely fastened.
5. Inspect the grinding disc for defects such as cracks, breaks or grooves. Do not use if any of these conditions are present.
6. Do not install a sanding disc whose labeled RPM speed is lower than the rated speed of the sander.
7. When starting the sander, hold it away from your person in a protected place, such as under a workbench, until you have determined that it is operating safely.
8. After use, wait until the disc has fully stopped rotating and place the sander on its back or on a rubber stand. Disconnect it from the power source.
9. Do not hold a small piece of material in your hand to sand it.
10. Do not overload the sander by pushing it down onto the work piece. Allow the weight of the sander to supply the pressure.

Drill Press

1. Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.
2. Lock the press table into place and set the depth adjustment before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
6. Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Hydraulic/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 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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it “Out of Service.”
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled “Type 1.”
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

PRODUCTION EMPLOYEES

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

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

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a handsaw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.

8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Clamps

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

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your 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 you have finished using them.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

Shop safety

1. Use the hydraulic jack when lowering a transmission from a vehicle. If you do not have a hydraulic jack, get a co-worker to help you lower the transmission.

2. The following best practice guidelines should be used for vehicles that have the full frame and transmission removed:
 - a. Do not work alone.
 - b. Place hydraulic jacks under both sides of the frame.
 - c. Place a hydraulic jack under the transmission
 - d. Once the hydraulic jacks are in place, lower the frame slowly.
 - e. Once the frame is lowered, lower the transmission.
 - f. Do not stand under the transmission or frame while they are being lowered.
 - g. Pick up hot automotive parts using protective gloves, heat resistant pads or dry rags.
 - h. Place the hot automotive parts in a metal container that is labeled “Hot Metal Parts Only.”
3. Engage the parking brake and use the wheel blocks to chock the vehicle before starting the engine of the vehicle.
4. Wear a protective apron, gloves and safety goggles when charging a battery.
5. Wear your leather gloves and respiratory protective device when removing clutches from vehicles.
6. Do not use compressed air to clean a transmission. Wash all disassembled transmission parts in a parts washer.
7. Use a flexible exhaust hose to vent engine exhaust to the outside when the shop bay doors are closed.
8. When grinding on a drive shaft, place the shaft in a vice grip to hold the shaft in place. If a vice grip is not available, get a co-worker to help you keep the shaft in place.
9. Do not point a compressed air hose at bystanders or use it to clean your clothing.

Battery Handling and Storage

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers to “Off” position prior to connecting the cables to the battery posts.
3. Do not smoke in the battery-charging areas.
4. Leave flame-arrester vent caps in place, but remove non-flame arrester-vent caps and lay a cloth over the vent holes before charging the battery.
5. Do not stand directly over the battery when performing a “load” test.
6. Obey all “No Smoking” signs posted in the battery-charging areas.
7. Do not use a screwdriver to test the charge of a battery.

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.

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 whenever 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.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn "Off" the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

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

Spray 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 before disconnecting them.
3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled "Flammable" or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.
6. Return containers of thinners, mineral spirits and other liquids labeled "Flammable" to the storage cabinet labeled "Flammable Storage," when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the "On" position to operate the mechanical ventilation system before and during all spraying operations.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.

4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

PRODUCTION EMPLOYEES

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your county's respiratory protection program.
2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.
4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
5. Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.
6. Store respiratory equipment in a clean and sanitary location.

Steel Drums

1. Roll a drum by pushing against the middle of the drum using both hands.
2. Use the cradle-type drum tilter when tilting drums.
3. Do not try to up-end a full drum by yourself.
4. Do not roll a full drum up a skid by yourself.
5. Chock both sides of a drum when storing the drum in a horizontal position.

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, stable, mobile, swivels and allows operator movement.
3. Adjust your seat height so your knees are about the same level as your hips.
4. Sit straight up in your chair. Where needed, use a footrest that has an adjustable height and is large enough to allow operator movement.
5. Adjust your computer screen and keyboard so they are directly in front of you.
6. Place the keyboard low enough so operator is not required to reach up or out to the keys.
7. Keep wrists and hands in a straight position while key stroking by keeping forearms parallel to the floor and elbows at your sides.
8. Select low frequency vibratory tools and tools that bend at the handle.
9. Select tools by weight for the task to distribute pressure evenly over the hand, to fit your hand size, and to provide a handle that accommodates a relaxed grip position.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.

4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

Machine Guarding

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Rigging Ropes, Cables and Chains

Ropes

1. Visually inspect ropes for broken strands, cuts, worn spots or any other damage. Do not use damaged ropes.

Wire Ropes and Cables

2. Follow your employer's rigging inspection best practice guidelines.
3. Remove wire rope from service when any of the following
4. conditions exist:
 - a. Twelve broken wires in 1 lay of the hoist cable.
 - b. Four broken wires in a strand in 1 lay of the hoist cable.
 - c. Ten broken wires in a strand in 1 lay of a cable sling.
 - d. When "bird caging" is present.
 - e. When excess corrosion is present on the cable.
5. Wear leather work-gloves when handling wire ropes or cables.
6. Do not use wire ropes that are kinked.
7. Keep your hands away from the cable that is "feeding" a drum, pulley or sheave.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.
4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on "soft" ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer's approval.

9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. “Trial Lift” the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

General Rules – Warehouse

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

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 Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.
5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.

11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
3. The mast has broken or cracked weld-points.
4. The roller tracks are not greased or the chains are not free to travel.
5. The forks are unequally spaced or cracks exist along the blade or at the heels.
6. Hydraulic fluid levels are low.
7. The hydraulic lines and fittings have excessive wear or are crimped.
8. Fluid is leaking from the lift or the tilt cylinders.
9. The hardware on the cylinders is loose.
10. The tires are excessively worn or split, or have missing tire material.
11. Air-filled tires are not filled to the operating pressure indicated on the tire.
12. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use "Reverse" to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.

5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
2. Do not fuel forklifts while the engine is running.
3. Do not operate a forklift with a leak in the fuel system.
4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
5. Replace fuel tank cap before restarting engine.
6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.
2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
4. Do not throw, drag, drop, or roll the propane cylinder.
5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
6. Wear protective gloves, such as leather or cotton when changing propane tanks.
7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
11. Inspect threads to ensure they are not flattened or gouged.
12. Open the fuel-control valve fully, then turn it toward the closed position $\frac{1}{4}$ to $\frac{1}{2}$ turn before starting the forklift.
13. Store propane tanks in a location where they should not be exposed to high temperature rise, physical damage or tampering.
14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers off prior to connecting the cables to the battery posts.

3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
5. Return charging cables to their designated location as soon as battery charging is complete.
6. Do not smoke in the battery-charging areas.
7. Manually flip the fan motor to the “On” position before operating the battery charger.

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.
4. Do not carry sheets of glass under your arm.
5. Do not use pallets or skids that are cracked or split or have other visible damage.
6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
7. Do not run on stairs or take more than one step of a staircase at a time.
8. Do not jump from elevated places such as truck beds, platforms or ladders.
9. Do not lift slippery or wet objects; use a hand truck.
10. 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.
11. Do not smoke while handling chemicals labeled “Flammable.”
12. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
14. Do not leave the pallet jack unattended with the load suspended.
15. Obey all safety and danger signs posted in the workplace.
16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

INDUSTRY SPECIFIC RULES – PRODUCTION EMPLOYEES

Radiator Boil Out Vat or Pressure Check Bath

1. Use personal protective clothing or equipment such as goggles, safety glasses, face shield, neoprene gloves, rubber boots and rubber aprons when placing material or parts into or removing them from the vat or bath.
2. On a daily basis, inspect the emergency eye-wash station to ensure it is working.
3. Prior to placing any material or parts in the pressure-check bath, make sure sufficient amounts of neutralizing solution is in the bath.

Freon Charging Unit

1. Only use hose connections that are rated “zero” discharge capabilities when charging the air conditioning unit.

Spin Balancer

1. Stay behind the spin balancer when it is rotating a tire.
2. Before turning on spin balancer, make sure the weights are firmly fixed to the wheel to be balanced.
3. Wear eye protection when operating the machine.

Tire Truer

1. Stay behind the tire truer when it is in operation, and keep others away.
2. Wear eye protection when operating the machine.
3. Clean shavings from around the machine regularly.

Automotive Lifts

1. Remove all tools, cords, hoses, trash and any other debris from the lift area and wipe up all grease and oil spills before driving a car or truck into your service bay.
2. Position the lift arms, adapters and supports to the center of the lift out of the way of the car's tires before driving the vehicle into the service bay.
3. Do not stand in front of a vehicle being driven into the service bay.
4. Do not use any lift that has cracked contact pads, cracked lift arms or any other visible damage.
5. Do not use wood or concrete blocks as a substitute for an extender.
6. Use wheel blocks to chock the wheels of any vehicle on a runway lift while the vehicle is on the lift.
7. Do not leave the controls unattended while the lift is in motion.
8. Do not block or "tie open" the lift's control while the lift is in motion.
9. Do not use the engine or transmission supports or stands as a substitute for jack stands.
10. If the vehicle begins to slip off of the lift, run in the opposite direction of the fall, but not toward a wall or workbench that might trap you between the object and the vehicle.
11. Before you lower the vehicle, remove tool trays, jack, engine and transmission stands, and any other obstruction from under the vehicle.
12. Before removing the vehicle from your service bay, position lift arms and supports to the center of the lift away from the wheels of the vehicles.
13. Do not "tie down" or override the air or control valves of the lift.
14. Do not raise vehicle with anyone inside it.
15. When raising a vehicle, use the following procedure:
 - a. Use the lift to raise the vehicle about 1 foot off the ground and moderately push the rear or front bumper of the vehicle to ensure the vehicle frame is stably mounted on the support's contact pads of the lift.
 - b. If the frame of the vehicle is not firmly touching a support contact pad or slipping, immediately lower the vehicle and start over.
 - c. Once the vehicle is secure on the lift, lift the vehicle to the desired work height and visually check those contact points for misalignment before going under the vehicle.
 - d. As you raise the vehicle, you should hear a "clicking" noise that indicates the lift's locking device is engaging. If you do not hear the "clicking" noise, stop the

lift, fully lower the vehicle and use another lift. Place an “Out of Service” tag on the control switch of the damaged lift and do not use it.

16. If you should be working under a lift that should be positioned at a point below where the lift’s locking device engages, place four jack stands under the vehicle’s frame or suspension for additional support before working under the vehicle.
17. Wear safety goggles when working underneath vehicles.

U Bolt Bender

1. Stay clear of the sides of the machine and keep others away when bending a bar.
2. Use only your foot to operate the foot pedal.

Spring Eye Former

1. Do not touch the hot metal. Use gloves or some type of grabbing implement to pick up the hot area.
2. When forming the spring eye, stand clear of the machine and keep others away.

Spring Tension Release Table

1. Firmly secure spring on table in vise.
2. Slowly remove bolts holding spring together.
3. Slowly release the tension on the table vise and separate the spring.
4. Wear eye protection when releasing tension from springs.

INDUSTRY SPECIFIC RULES – PRODUCTION EMPLOYEES

Vehicle Racks and Work Bays

1. When driving a vehicle in the work bay, use a spotter to make sure the vehicle is positioned well on the rack.
2. Check to make sure the rack is stable and capable of holding the vehicle load.
3. Slowly drive forward onto the rack. Do not make sudden starts or stops.
4. When positioned well onto the rack, place the vehicle transmission into park or first gear and set the parking brake.
5. When exiting a vehicle on the rack, do not jump from the driver’s seat. Exit the vehicle, stand on the rack, face the vehicle, and side step until you are off of the rack.
6. When entering a vehicle on the rack, side step on the rack, facing the vehicle, to the door. Open the door and use the handles and armrest to help you position yourself into the driver’s seat.

Parts Washer

1. Turn on local exhaust ventilation before starting any procedure.
2. Plug control center cord into ground.
3. Use personal protective goggles or face shield when using chemicals labeled “FLAMMABLE,” “CORROSIVE,” “CAUSTIC,” OR “POISONOUS.”

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 7542 CARWASHES

DETAILERS

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

New Vehicle Preparation

1. Do not use a razor blade that is not in a retractable holder for scraping price stickers off windows.

Pressure Washing

1. Keep both hands on the spray gun when operating the pressure washer.
2. Do not allow hoses to loop on the floor when using them.
3. When finished using the pressure washer, coil up the hose and hang it up on the wall.
4. Do not point the pressure washer at bystanders or use it to clean yourself.
5. Do not use hoses that have splits, cracks or other visible damage.

Cleaning Wheels

1. When spraying tire cleaner, hold the spray bottle or the applicator wand at arms length away and direct the spray away from your face.

Degreasing Engine

1. Turn the vehicle off before degreasing the engine.
2. When spraying engine degreaser, hold the spray bottle or the applicator wand at arms length away and direct the spray away from your face.
3. When cleaning a hot engine with a brush or cloth, wear gloves and stay away from the cooling fan.
4. Do not place any part of your body directly over the battery or radiator cap.

Conveyorized Car Washing

1. Shift the gear into neutral. If the car has an automatic transmission, press the brakes and move the gear lever down two notches to "N". If the car has a manual transmission, press

the clutch and brakes and move the stick shift to the middle so that the stick shift can move left and right freely; if the stick shift does not move left and right freely, it is not in neutral.

2. Turn the vehicle off before it enters the conveyORIZED carwash.
3. Do not lock the vehicle doors.
4. In special cases where the engine should stay running, someone should ride in the vehicle while it is going through the conveyORIZED carwash.
5. Do not stand in the wash area while a vehicle is being mechanically washed.

Towel Washing Machine

1. Do not place any body parts in the tub while it is in operation.
2. Do not attempt to remove towels from the extractor while it is in motion.

Drying Vehicles

1. Do not attempt to cloth-dry broken headlights, tail lights, glass or body damaged area with sharp-pointed edges.
2. Do not stand directly in front of or behind a vehicle. Stand to the side of the vehicle when drying.

Bug and Tar Removal

1. Do not smoke while using the bug and tar remover.
2. Wash your hands with soap and water after using the bug and tar remover.

Blow Gun

1. Do not use a compressor if a belt guard is missing. Replace the belt guard before use.
2. Attach the pressure-reducing nozzle that is labeled "Reduces Pressure to 30 psi" to the air hose when using compressed air to clean. Wear safety goggles when using compressed air to clean.
3. Do not allow air hoses to loop on the floor when using them.
4. Do not point the blow gun at bystanders.
5. Disengage the hand piece from the air hose and coil up air hoses when they are not in use.

Electrical Equipment –High Speed Buffer, Orbital, Carpet Shampooer, Vacuum Cleaner

1. Do not use an electrical tool if its housing is cracked.
2. Do not use electrical tools while working from a metal ladder unless the ladder has rubber feet.
3. Turn the tool off before plugging or unplugging it.
4. Do not leave tools unattended that are "On."
5. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.
6. 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.
7. Do not carry equipment or tools by the cord.

High Speed Buffer

1. Before changing the buffing pad, unplug the high-speed buffer from the power source.
2. Only use grip locations as specified by the manufacturer as a handhold when operating the high-speed buffer.
3. Do not wear loose clothing or dangling jewelry while operating the buffer.
4. Keep your body parts and clothing away from the rotating buffing pad.
5. Place the power cord over your shoulders to keep the cord from being tangled in the rotating buffer.
6. Do not carry a plugged in buffer with your finger on the switch.
7. Do not operate the high-speed buffer over your head. Use a scaffold or other elevated work platform.

Orbital

1. Do not use the orbital if the power switch does not turn the orbital “On” and “Off”.
2. Before changing the polishing pad, turn the power switch of the orbital to “Off” and unplug it from the power source.
3. Do not wear loose clothing or dangling jewelry while operating the orbital.
4. Do not start the orbital unless the orbital is on the car.
5. Do not take the orbital off the car while the orbital is in operation.
6. Turn the power switch of the orbital to “Off” before lifting up the orbital from the vehicle.
7. Keep your body parts and clothing away from the rotating polishing pad.
8. Do not operate the orbital over your head. Use a scaffold or other elevated work platform.

Vacuum Cleaner

1. Visually inspect for sharp objects before vacuuming underneath the seat.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 7692/7699 WELDING REPAIR

OFFICE PERSONNEL

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

FORKLIFT AND CRANE/HOIST OPERATORS

General Repair Shop Safety

1. Read and obey safety warnings posted on or near any machinery.
2. Long hair should be contained under a hat or hair net, regardless of gender.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Forklifts

Pre-Use Inspection

1. Only forklift operators may operate the forklift.
2. Do not use the forklift if any of the following conditions exist:
 - a. The mast has broken or cracked weld-points.
 - b. The roller tracks are not greased or the chains are not free to travel.
 - c. The forks are unequally spaced or cracks exist along the blade or at the heels.
 - d. Hydraulic fluid levels are low.
 - e. The hydraulic lines and fittings have excessive wear or are crimped.
 - f. Fluid is leaking from the lift or the tilt cylinders.
 - g. The hardware on the cylinders is loose.
 - h. The tires are excessively worn or split, or have missing tire material.
 - i. Air-filled tires are not filled to the operating pressure indicated on the tire.
 - j. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the 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 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about 1 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 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 1 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.
5. Lower the forks 4 to 6 inches at the tips, and 2 inches at the heels before driving the forklift.

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 best practice guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
3. Lift the load 1 to 2 inches 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 greater lift capacity.
4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

1. 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.
2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.

4. Do not drive over objects in your pathway.
5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
6. Steer wide when making turns.
7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
10. Drive in reverse and use a signal person when the load blocks your vision.
11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
2. Drive loaded forklifts forward up ramps.
3. Drive loaded forklifts in reverse when driving down a ramp.
4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
5. Do not attempt to turn around on a ramp.
6. Do not use “Reverse” to brake.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.
3. Attach the bridge or dock plate before driving the forklift into the truck.
4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
5. Drive straight across the bridge plates when entering or exiting the trailer.
6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

1. Do not manually upright fallen drums under any circumstances – use a forklift.
2. Clear all personnel from the area of the drum being up righted.
3. Move the forks of the forklift approximately 18 to 20 inches apart.
4. Line up the forklift with one fork on each side of the top of the drum.
5. Upright the drum slowly by raising the forks while slowly moving forward.
6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
7. Move it to a clear area before attempting to upright the drum.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent or broken.
2. Passengers are not permitted to ride inside the operator’s cab of a truck crane.
3. Keep crane windows clean. Do not use a crane if its windows are broken.

4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
5. Use the cribbing mats when operating the crane on “soft” ground.
6. Fully extend the outriggers of the crane before attempting a lift.
7. Stay outside the barricades of the posted swing radius of the crane.
8. Do not perform any crane refits or modifications without the manufacturer’s approval.
9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
10. Do not hoist loads over people.
11. Do not stand under a suspended load.
12. Do not drive the crane on the road shoulders.
13. Signalmen should wear the high-visibility, fluorescent orange vest.
14. When operating a crane, follow only signals of the person designated to give you signals.
15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
16. “Trial Lift” the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

TRUCK AND OTHER VEHICLE DRIVERS (TOW TRUCKS, LOW BOYS, FLAT BEDS, ETC.)

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.
7. Use side and rearview mirrors before making lane changes, turns and sudden stops.
8. Turn the vehicle off before fueling.
9. Do not smoke while fueling a vehicle.
10. Wash hands with soap and water if you spill gasoline on your hands.

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 delivery trucks.

Heavy Equipment Safety

1. Wear hard hats, hearing protection and safety goggles while operating heavy equipment.
2. Wear seat belts when operating scrapers, loaders, dozers, tractors and graders.
3. No passengers are permitted on heavy equipment.
4. Keep windows and windshield clean.
5. Do not use heavy equipment if its horn and backup alarm do not sound.
6. Do not crawl under the raised dump body during inspection of a dump truck.

7. Turn off the engine before leaving heavy equipment unattended.
8. Do not jump “Off” or “On” any heavy equipment.
9. Do not stay in the cab of haulage vehicles while the payload is being loaded or unloaded by cranes or loaders.
10. When finished using bulldozers or loaders, land the blade on the ground, set the brakes, turn off the power and shift the gear lever into neutral.
11. Keep heavy equipment in gear when going down grade. Do not use neutral.
12. Do not enter the bucket swing radius while the equipment is in operation.
13. Display the “Slow Moving Vehicle” sign when operating heavy equipment on roads.

Trucks

1. Drive on the graded roadways that have been leveled for this purpose.
2. Turn on 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. Only service-vehicle personnel are permitted to operate a service vehicle.
6. Do not ride in the bed of a pick up truck.
7. Turn headlights on when driving inside the shop area or on parking decks.
8. Do not drive over 5 mph in the shop area.

CLEANING AND SANITATION PERSONNEL (SEPTIC TANK, FURNACE, TANK TRUCK, ETC.)

Housekeeping

1. Do not use gasoline for cleaning purposes.
2. Keep floors clear of items such as service tools, oily rags, or dust.
3. Store rags that have oil or grease on them in closed metal containers labeled “oily rags.”
4. Do not store food or eat where equipment/instrument cleaning is being performed.
5. Close the lids of containers of cleaning solvent tightly after each use or when not being used.
6. Do not throw matches, cigarettes or other smoking materials into trash baskets.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

General Cleaning Area Safety

1. Read and obey safety warnings posted on or near any machinery.
2. Long hair should be contained under a hat or hair net, regardless of gender.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Handling Chemicals

1. Do not use gasoline for cleaning parts.
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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons and protective eyewear, when using chemicals labeled “Flammable,” “Corrosive,” “Caustic” or “Poisonous.”
4. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible damage.
5. 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.
6. Do not drag containers labeled “Flammable.”

General Parts Cleaning

1. Remove any oxidized rubber, rust or heavy paint from the item being cleaned using a wire brush.
2. Wear safety glasses when cleaning with wire wheel or wire brush.
3. Wear protective gloves when cleaning parts.

High Pressure Water Cleaning

1. Do not point the hose nozzle at bystanders or yourself.
2. Visually inspect the hose for cracks and holes. Do not use if cracks or holes are present.
3. When turning the water “On” or “Off,” hold the hose with one hand. Do not leave the hose unattended when in operation.
4. Hold the hose nozzle with both hands and lean forward to stabilize yourself.
5. Disconnect the nozzle from the hose or the hose from the water pump before making any repairs.
6. Wear safety glasses when operating high-pressure water hose.

Steam Cleaning Operations

1. Do not point a steam-cleaning nozzle at bystanders or yourself.
2. Do not use compressors if their belt guards are missing. Replace the belt guards before using the compressor.
3. Turn the power switch of the steam cleaner to the “Off” position and let it come to a complete stop before leaving it unattended.
4. Disconnect the steam cleaning nozzle from the air line before making any adjustments or repairs to the tool.
5. Wear work shoes, gloves, and safety glasses when operating the steam cleaner.
6. Do not touch the steam-cleaning wand during use.

Sanders

1. Wear gloves, apron, dust mask, goggles and hearing protection.
2. When using a disk sander, sand on the downward side of the disk.
3. Do not eat, drink or use tobacco products while using sanders.
4. After leaving the sanding area, wash your hands and the exposed skin area of your arms.
5. Do not wear contact lenses when sanding.

Sand Blasting Safety

1. Only blasters may use blasting equipment.
2. 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.
3. Do not use compressed air to clean equipment or yourself.

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.

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 whenever 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.

Tanks and Other Confined Spaces (Tank Trucks, Sewers, Boilers, etc.)

1. Do not enter confined spaces without reading and following this “confined space entry procedure.”
2. Obtain a confined space entry permit from your supervisor before entering a confined space.
3. Valve off and disconnect all hoses, lines and self-cleaning devices on the tank.
4. Get locking devices and labels from your supervisor to lock out and tag “Out of Service” all impellers, agitators, pumps or any other equipment in the tank before entering the tank.
5. Open all manholes of the tank for ventilation.
6. Purge the interior of a tank by introducing fresh air at the bottom of the tank by turning the fans or the ventilation system to “On.” Discharge the air from the manholes at the top of the tank.
7. Use a Combustible Gas Analyzer to test the tank for an oxygen deficiency or accumulated combustible gases. Do not enter the tank if the reading for the Combustible Gas Analyzer is above 10% LFL and the oxygen level is below 19.5% or greater than 23.5%.
8. Do not enter any area labeled “confined space” without a confined space entry permit.
9. Use survey equipment such as an “organic vapor meter” to test and monitor the confined space for oxygen deficiency and explosive or hazardous gases/fumes. If the organic vapor meter reading for the explosive gases is above 10% of the LEL and if the oxygen reading is below 19.5% or greater than 23.5%, do not enter the confined space.
10. Turn “off” disconnect, or lock and tag all systems that affect or make operational the confined space prior to entry.
11. Do not perform hot work such as electric or gas welding or cutting in or on a confined space until the atmosphere has been determined to be safe.

12. Use mechanical forced air ventilation when open flames or torches are used in a confined space.
13. Do not leave tools and/or materials around the confined space opening.
14. Do not throw materials into or out of manholes. Place materials in a receptacle and hoist them in and out by means of a rope.
15. Use a ladder when entering or leaving an underground vault.
16. Do not enter any confined space without a safety observer present; minimum of a two-person team.

DIAGNOSTICS AND DISASSEMBLE PERSONNEL

General Rules

1. Do not manually lift equipment or parts use: hoist, fork trucks or other lifting aids.
2. Follow the manufactures specification for lifting and securing equipment with hoist, fork truck, or other lifting aids.
3. Attach your own pin or block when you are work on equipment or parts that may move or shift.
4. Do not remove a pin or block from equipment or parts unless you placed it there.
5. Select the tools that should eliminate or minimize the following stressors:
 - a. Chronic muscle contraction or steady force.
 - b. Extreme or awkward finger, hand, and/or arm positions.
 - c. Repetitive forceful motions.
 - d. Excessive gripping, pinching, pressing, with the hand and fingers.
 - e. Vibration
6. Pause to relieve fatigued muscle-tendon groups. The length of time needed depends on the task's overall effort and total cycle time.

Housekeeping

1. Do not use gasoline for cleaning purposes.
2. Do not throw matches, cigarettes or other smoking materials into trash baskets.
3. Keep floors clear of items such as service tools, metal chips, oily rags, metal shavings and other debris.
4. Store rags that have oil or grease on them in closed metal containers labeled "oily rags."
5. Do not store food or eat where repair work is being performed.
6. Close the lids of containers of paint and thinner tightly after each use or when not being used.
7. Use brushes or vacuum machinery to remove metal chips, shavings and other debris from the equipment being serviced. Do not use your bare hands.

Solvents and Cutting Fluids

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. When using chemicals labeled *flammable*, *corrosive*, *caustic*, or *poisonous*, use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear.
3. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other signs of visible damage.

4. Always wash your hands with soap and water after using cutting fluids or solvents.
5. 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 your gloves.
6. Only dispense liquid labeled “flammable” from its bulk container located in areas posted “flammable liquid storage.”
7. Do not use chemicals from unlabeled containers
8. Do not perform “hot work,” such as metal cutting or other spark-producing operations, within 50 feet of containers labeled “flammable” or “combustible.”

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.
2. Hold a chisel by using a tool holder if possible.
3. Clamp small work pieces in the vise and chip toward the stationary jaw when you are working with a chisel.

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 one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.

5. Do not use a hammer as a wedge or a pry bar.

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Clamps

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

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.

21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.
24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Drills

1. Do not use dull, cracked or bent drill bits.
2. Physically check the security of the drill bit or cutting tool within the chuck prior to operation.
3. Keep your hands away from rotating parts.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Hydraulic/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 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.

Dip Tank Operations

1. Slowly pour liquid solvents into the dip tank to avoid splashing.
2. Slowly dip pieces into the dip tank to prevent splashing.
3. Wear Neoprene gloves, aprons and goggles when dipping work pieces into the dip tank.

REPAIR PERSONNEL (REASSEMBLY)

General Rules

1. Do not manually lift equipment or parts; use a hoist, fork truck or other lifting aid.
2. Follow the manufacturer's specification for lifting and securing equipment with hoist, fork truck, or other lifting aids.
3. Select the tools that should eliminate or minimize the following stressors:
 - a. chronic muscle contraction or steady force;
 - b. extreme or awkward finger, hand, and/or arm positions;
 - c. repetitive forceful motions;
 - d. excessive gripping, pinching, pressing, with the hand and fingers;
 - e. vibration.
4. Pause to relieve fatigued muscle-tendon groups. The length of time needed depends on the task's overall effort and total cycle time.

Housekeeping

1. Do not use gasoline for cleaning purposes.
2. Do not throw matches, cigarettes or other smoking materials into trash baskets.
3. Keep floors clear of items such as metal chips, bolts, oily rags, metal shavings or metal dust.
4. Store rags that have oil, cutting fluids, or solvents on them in closed metal containers labeled "oily rags."
5. Close the lids of containers containing cutting fluids and solvents tightly after each use or when not being used.
6. Use brushes or vacuum equipment to remove metal chips, shavings and other debris from the drill table and grinder table. Do not use your bare hands.
7. Sweep up shavings from around equipment such as drill presses, lathes, boring mills, grinders or planers by using a broom and a dust pan.

Machine and Equipment Safety

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.

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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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. Do not force a screwdriver by using a hammer or pliers on it.
5. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.

6. Use a screwdriver that has an insulated handle for electrical work.
7. Use a drill, nail, or an awl to make a starting hole for screws.
8. Do not carry a screwdriver in your pocket.
9. Do not use a screwdriver if your hands are wet, oily or greasy.
10. When using the spiral ratchet screwdriver, push down firmly and slowly.
11. Do not use a screwdriver to test the charge of a circuit.

Wrenches

9. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
10. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
11. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
12. Do not slip a pipe over a single-head wrench handle for increased leverage.
13. Do not use a shim to make a wrench fit.
14. Size the adjustable wrench to fit the nut before turning.
15. Use a split box wrench on flare nuts.
16. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Electrical Powered Tools

26. Do not use power equipment or tools on which you have not been trained.
27. Keep power cords away from the path of drills, saws, vacuum cleaners, floor polishers, mowers, slicers, knives, grinders, irons and presses.
28. Do not use cords that have splices, exposed wires, or cracked or frayed ends.
29. Do not carry plugged-in equipment or tools with your finger on the switch.
30. Do not carry equipment or tools by the cord.
31. Disconnect the tool from the outlet by pulling on the plug, not the cord.
32. Turn the power switch of the tool to "Off" before plugging or unplugging it.

33. Do not leave tools that are “On” unattended.
34. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.
35. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled “Flammable” nor in an explosive atmosphere such as a paint spray booth.
36. Turn the power switch of electrical tools to “Off” and then unplug from the outlet before attempting repairs or service work. Tag the tool “Out of Service.”
37. Do not use extension cords or other three pronged power cords that have a missing prong.
38. Do not remove the ground prong from electrical cords.
39. Do not use an adapter such as a cheater plug that eliminates the ground.
40. Do not plug multiple electrical cords into a single outlet.
41. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
42. Do not drive over, drag, step on or place objects on a cord.
43. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
44. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
45. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
46. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
47. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
48. 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.
49. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
50. 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.

Hydraulic/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 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.

Jacks

1. Do not exceed the jack’s rated lifting capacity as noted on the label of the jack.
2. Clear all tools, equipment and any other obstructions from under the vehicle before lowering the jack.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it “Out of Service.”
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled “Type 1.”
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Power Saws

1. Wear safety goggles, a dust mask and hearing protection when operating a power saw.
2. Do not wear loose clothing or jewelry.
3. Clean any residue from the blade or cutting head before making a new cut with the power saw.
4. Do not use a power saw that has cracked, broken or loose guards, or other visible damage.
5. Remove all nails from the stock before using the power saw to cut the stock.
6. Do not make measurements to the stock while the power saw is running. Make the measurements before turning the power switch to the “On” position.
7. Keep your hands away from the exposed blade.
8. Never let your hand, finger or thumb cross the cutting line.
9. When using the power saw, do not hold the work piece against your body when making the cut.
10. Operate the saw at full cutting speed.
11. Do not alter the anti-kickback device or blade guard.
12. Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
13. When using the power saw, do not reach across the cutting operation.
14. Cut away from your body and below your shoulder level when using a power saw.
15. Use the pusher stick to guide materials through the power saw when cutting short stock.
16. Turn the power switch of the saw to the “Off” position and allow the blade to stop before attempting to pull out an incomplete cut.
17. Do not feed the material faster than the power saw can cut it.

Riveting and Bolting

1. Do not use your hands to guide a bit into place when riveting or bolting steel.
2. Disconnect the snap and plunger from an air hammer when it is not in use.
3. Do not pass air-powered tools by the hose from one worker to another.
4. Do not throw material from one person to another. Use tag lines and a basket to hoist bolts, washers, drift pins, and tools.

5. Use a receptacle or a net to catch rivets or bolts that are knocked off or backed out from your work area.
6. Do not carry nuts, bolts, rivets, or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.

Handling Chemicals

1. Do not use gasoline for cleaning parts.
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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons and protective eyewear, when using chemicals labeled “Flammable,” “Corrosive,” “Caustic” or “Poisonous.”
4. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible damage.
5. 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.
6. Do not drag containers labeled “Flammable.”

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Spray 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 before disconnecting them.
3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled “Flammable” or in an explosive atmosphere such as paint spray booths or rooms.
5. Perform all spray-painting operations in the spray booth or room.
6. Return containers of thinners, mineral spirits and other liquids labeled “Flammable” to the storage cabinet labeled “Flammable Storage,” when painting is finished.
7. Do not point the spray gun toward any part of your body or at anyone else.
8. Turn the control switch to the “On” position to operate the mechanical ventilation system before and during all spraying operations.

Respirators

1. Use the respirator provided by your supervisor for your assigned duties.

2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
3. Do not wear contact lenses when wearing a respirator.
4. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
5. Only use the respirator that has been issued to you.

Painting Safety

1. Always wash your hands with soap and water after using paints. Do not use mineral spirits, paint thinner, acetone or any other toxic solvents to remove paint from your skin.
2. Store rags that have oil or paint on them in closed metal containers labeled “oily rags.”
3. Press the pressure relief valve on painting canisters and painting guns prior to disconnecting them.
4. Do not store food or eat where spray painting is being performed.
5. Close the lids of containers of paint and thinner tightly after each use or when not being used.

Heat Gun (Glue Gun)

1. Do not expose any body part to the heat source of the gun.
2. Place the gun in a holder or on an insulated material after use.
3. Pick up the gun by the handle, not by the shaft.
4. Keep hands clear of “barrel opening” when operating the heat gun.

MAINTENANCE PERSONNEL

Housekeeping

1. Do not use gasoline for cleaning purposes.
2. Do not throw matches, cigarettes or other smoking materials into trash baskets.
3. Keep floors clear of items such as service tools, metal chips, oily rags, metal shavings or metal dust.
4. Store rags that have oil or grease on them in closed metal containers labeled “oily rags.”
5. Do not store food or eat where repair work is being performed.
6. Close the lids of containers of paint and thinner tightly after each use or when not being used.
7. Use brushes or vacuum machinery to remove metal chips, shavings and other debris from the equipment being serviced. Do not use your bare hands.

Machine and Equipment Servicing

1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Do not wear loose clothing or jewelry in the machine shop.
4. Long hair should be contained under a hat or hair net, regardless of gender.
5. Read and obey safety warnings posted on or near any machinery.
6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Lockout/Tagout

1. Notify all affected employees of the impending lockout situation, the reason for it, and estimated start and duration times.
2. Place the breaker or switch in the “Off” or “Safe” position.
3. Lockout and tagout all inline points of control. In most cases, this may be more than one place or more than one lock if several people are working on the equipment.
4. Lockout verification:
 - a. Verify the locked-out switch or control cannot be overridden.
 - b. Test the equipment to be certain the locked-out switch is de-energized and not simply malfunctioning.
 - c. Press all start buttons to see if the equipment starts.
 - d. Ensure the system you should be working on is the same one that has been locked out.
 - e. All locks and tags are to be left in place until work is completely finished. A lock is never to be removed except by the person who placed it there. Only immediate supervisors are to authorize emergency removal of a lock or tag.
5. Before restarting the equipment, verify the following:
 - a. All tools and other items have been removed.
 - b. All machine guards are in place.
 - c. All electric systems are reconnected.
 - d. All employees are clear of equipment.

Pneumatic Tools

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. Attach the pressure-reducing nozzle that is labeled “Reduces Pressure to 30 psi” to the air hose when using compressed air to clean.
4. Wear safety goggles when using compressed air to clean.
5. Do not allow air hoses to loop on the floor when using them.
6. Do not pass air-powered tools by the hose from one worker to another.
7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
8. Turn the tool to the “Off” position and let it come to a complete stop before leaving it unattended.
9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
10. Do not use compressed air for comfort cooling.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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. Do not force a screwdriver by using a hammer or pliers on it.
5. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
6. Use a screwdriver that has an insulated handle for electrical work.
7. Use a drill, nail, or an awl to make a starting hole for screws.
8. Do not carry a screwdriver in your pocket.

9. Do not use a screwdriver if your hands are wet, oily or greasy.
10. When using the spiral ratchet screwdriver, push down firmly and slowly.
11. Do not use a screwdriver to test the charge of a circuit.

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."

8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.
2. Tape over or file off sharp edges on toolboxes, chests or cabinets.
3. Do not stand on toolboxes, chests or cabinets to gain extra height.
4. Lock the wheels on large toolboxes, chests or cabinets to prevent them from rolling.
5. Push large chests, cabinets and toolboxes; do not pull them.
6. Do not open more than one drawer of a toolbox at a time.
7. Close and lock all drawers and doors before moving the tool chest to a new location.
8. Do not use a toolbox or chest as a workbench.
9. Do not move a toolbox, chest or cabinet if it has loose tools or parts on the top.

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 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 power switch of the tool to "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" nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to "Off" and then unplug 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.

24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Compressed Gas Cylinders

Storage and Handling

8. Do not handle oxygen cylinders if your gloves are greasy or oily.
9. Store all cylinders in the upright position.
10. Place valve-protection caps on gas cylinders that are in storage or not in use.
11. Do not lift cylinders by the valve protection cap.
12. Do not store compressed gas cylinders in areas where they can come in contact with chemicals labeled "Corrosive."
13. Place cylinders on a cradle, sling board, pallet or cylinder basket to hoist them.
14. Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

Use of Cylinders

13. Do not use dented, cracked or other visually damaged cylinders.
14. Use only an open-ended or adjustable wrench when connecting or disconnecting regulators and fittings.
15. Do not transport cylinders without first removing regulators and replacing the valve-protection caps.
16. Close the cylinder valve when work is finished, when the cylinder is empty or whenever the cylinder is moved.
17. Do not store oxygen cylinders near fuel-gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.

18. Stand to the side of the regulator when opening the valve.
19. 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.
20. Do not hoist or transport cylinders by means of magnets or choker slings.
21. Do not use compressed gas to clean the work area, equipment or yourself.
22. Do not remove the valve wrench from acetylene cylinders while the cylinder is in use.
23. Open compressed gas cylinder valves slowly. Open fully when in use to eliminate possible leakage around the cylinder valve stem.
24. Purge oxygen valves, regulators and lines before use.

Handling Chemicals

1. Do not use gasoline for cleaning parts.
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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons and protective eyewear, when using chemicals labeled “Flammable,” “Corrosive,” “Caustic” or “Poisonous.”
4. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible damage.
5. 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.
6. Do not drag containers labeled “Flammable.”

WAREHOUSE PERSONNEL (PARTS PICKER/PARTS CLERK, DELIVERY/RECEIVING)

Warehouse Safety

1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
3. Remove or bend nails and staples from crates before unpacking the crates.
4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
5. Do not try to kick objects out of pathways. Push or carry them out of the way.
6. Do not let items overhang from shelves into walkways.
7. Move slowly when approaching blind corners.
8. Place heavier loads on the lower or middle shelves.
9. Remove one object at a time from shelves.
10. Place items on shelves so that they lie flat and do not wobble.

Housekeeping

1. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
2. Do not store food or eat where solvents, oils, cutting fluids, or any other chemicals are stored or used.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted "Hearing Protection Required."

Hazardous Chemicals

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. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled *Flammable*, *Corrosive*, *Caustic* or *Poisonous*.
3. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable," observe the following safety procedure:
 - a. Only use red color-coded metal containers for transferring the liquid.
 - b. Electrically ground and bond the containers as follows:
 - i. Attach the clip at one end of the grounding wire to the rim of the dispensing container and then attach the clip at the other end of the grounding wire to a ground source, such as a ground-driven steel stake.
 - ii. Attach the clip at one end of the bonding wire to the rim of the dispensing container and then attach the clip at the other end of the bonding wire to the rim of the receiving container.
 - iii. You are now ready to dispense the liquid from the bulk container into the open receiving container.
 - iv. Upon completion, replace the lid on the receiving container and remove the bonding wire.
4. Do not perform "hot work," such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled "Flammable" or "Combustible."
5. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
6. 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.
7. Do not use chemicals from unlabeled containers and unmarked cylinders.
8. Do not smoke while handling chemicals labeled "Flammable."
9. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
10. Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop rags.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.
6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

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.

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 whenever 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.

Lifting Equipment (Chains, Cables, Ropes, Slings)

1. Do not use chain slings if links are cracked, twisted, stretched or bent.
2. Do not use a kinked chain.
3. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
4. Do not place your hands between the sling and its load when the sling is being tightened around the load.
5. Lift the load from the center of hooks, not from the point.

Hand Truck Safety

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

Pallet Jacks

1. Only pallet jack operators may operate pallet jacks.
2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
3. Do not leave the pallet jack unattended with the load suspended.
4. Do not use pallets or skids that are cracked or split or have other visible damage.

5. Do not ride on pallet jacks.
6. Start and stop the pallet jack gradually to prevent the load from slipping.
7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
8. If your view is obstructed, use a spotter to assist in guiding the load.
9. Stop the pallet jack if anyone gets in your way.
10. Do not place your feet under the pallet jack when it is moving.
11. Keep your feet and other body parts clear of the pallet before releasing the load.

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. Store knives in knife blocks or in sheaths after using them.
4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
5. Do not use honing steels that do not have disc guards.
6. Do not attempt to catch a falling knife.
7. Use knives for the operation for which they are named.
8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
9. Do not use knives that have broken or loose handles.
10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
11. Do not leave knives in sinks full of water.
12. Do not pick up knives by their blades.
13. Carry knives with their tips pointed toward the floor.
14. 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.
15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

WELDING PERSONNEL

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Use the insulated work gloves when using welding equipment.
4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on 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.

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 whenever 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.

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Do not use worn or cracked hoses.
5. Do not use oil, grease or other lubricants on the regulator.
6. "Blow out" hoses before attaching the torch.
7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
8. Do not wear contact lenses when you are welding.
9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
10. Do not change electrodes using your bare hands; use the dry rubber gloves.
11. "Bleed" oxygen and fuel lines at the end of the work shift.
12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
2. Turn the valve on the torch clockwise to turn “Off” the gas before putting down the welding or cutting torch.
3. Never allow pressure to remain in the hoses overnight:
 - a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.
 - b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
 - c. Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
 - d. Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Wear safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear safety goggles when welding or soldering.
4. Do not continue to work if safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the di-electric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear earplugs or earmuffs in areas posted “Hearing Protection Required.”

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.

10. 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.
11. Do not perform “make-shift” repairs to tools.
12. Do not use “cheaters” on load binders or “boomers.”
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
2. When using a file or 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.
2. Do not strike nails or other objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.
4. Do not use a hammer if your hands are oily, greasy or wet.
5. Do not use a hammer as a wedge or a pry bar.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
3. Do not use a saw that has a dull saw blade.
4. Keep hands and fingers away from the saw blade while using the saw.
5. Do not hold the work piece against your body while using the saw.
6. Do not carry a saw by the blade.
7. When using a hand saw, hold the work piece firmly against the work table.

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

Wrenches

1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
4. Do not slip a pipe over a single-head wrench handle for increased leverage.
5. Do not use a shim to make a wrench fit.
6. Size the adjustable wrench to fit the nut before turning.
7. Use a split box wrench on flare nuts.
8. Do not use a wrench with broken or battered points.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not slip a pipe over the handles of pliers to increase leverage.
3. Use pliers with an insulated handle 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.

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.

Grinders

1. Do not use grinding wheels that have chips, cracks or grooves.
2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
4. Do not use grinder if it is not firmly anchored to the workbench.
5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
7. Do not grind on the side of an abrasive wheel labeled "Type 1."
8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 7991 PHYSICAL FITNESS FACILITIES

TRAINERS/INSTRUCTORS/LIFE GUARDS/POOL CLEANERS

Trainers/Instructors

1. Warm up and stretch at the beginning of your work shift.
2. Drink plenty of clear liquids during your breaks.
3. Stay clear of guests playing sports activities such as tennis, racquetball, basketball, football or volleyball.

Life Guards/Pool Cleaners

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. Drink plenty of clear liquids during your breaks.
3. When working outdoors during the day, wear sun block.
4. Close outdoor pool operations during electrical storms and go inside the building.
5. Keep electrical cords away from the pool area.
6. Never operate electrical equipment bare-footed. Wear rubber-soled or insulated work boots.
7. Wear rubber gloves when handling pool products such as chlorine or muriatic acid.

OFFICE/PRO SHOP PERSONNEL: CASHIER, SALES, SECRETARY, PRO SHOP EMPLOYEE

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use a ladder or step stool to retrieve or store items that are located above your head.
12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.

17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to “Off” and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

Pro Shop

1. Use a closed fist or the back of your hand to close cash register drawers.
2. Do not allow merchandise to accumulate on the floor behind the counter.

Unpackaging Merchandise

1. Wear safety glasses when cutting strapping bands, uncrating materials and driving nails.
2. Stand to the side of the strapping band when cutting it.
3. Store case cutters, exacto knives or other tools with cutting edges in sheaths when they are not in use.
4. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into containers such as boxes or crates.
5. Remove staples from crates and boxes before unpacking.

Stocking Shelves

1. When manually stocking shelves, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
2. Do not let items overhang from shelves into walkways.
3. Place heavier merchandise on the lower or middle shelves.
4. Remove one object at a time from shelves.
5. Place items on shelves so they lie flat and do not lean against each other.

Hand Truck Safety

1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
2. Push the tongue of the hand truck all the way under the load to be moved.
3. When loading hand trucks, keep your feet clear of the wheels.
4. Push the load so that weight should be carried by the axle and not the handles. The operator should only balance and push.

5. Place the load so it should not slip, shift or fall. Use straps, if provided, to secure the load.
6. Do not try to catch the load if it is falling or slipping. Get out of the way.
7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
9. Move hand trucks at a walking pace.
10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
13. Store hand trucks with the tongue under a pallet, shelf, or table.
14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

LAUNDRY PERSONNEL

General Rules

1. Read and obey safety warnings posted on or near any machinery.
2. Do not wear loose clothing or dangling jewelry in the laundry room.
3. Do not try to stop laundry as it goes through the press rollers. If the machine becomes jammed, disconnect the power before clearing the jam.
4. Before putting an iron into its storage place, test the iron for heat by placing the heating surface on a dry cloth and then touching the cloth. If the cloth feels warm, allow the iron to cool before putting it away.

Towel Handling

1. Use a cart to transport bundles of wet towels.
2. Move towel carts by pushing them rather than pulling them.
3. If your view is obstructed, use a spotter to assist in guiding the cart around corners and through corridors.
4. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into laundry bags or towel hampers.
5. Wear latex gloves when handling towels that are visibly stained with blood or other bodily fluids.
6. Do not use latex gloves that have split seams, pinholes, cuts, tears or are otherwise visibly damaged.
7. 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 gloves.
8. Let the dryer cool for several minutes after it stops before removing towels from it.

HOUSEKEEPING/CLEANING PERSONNEL

General Rules

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.

3. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
4. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
5. Do not place material such as boxes or trash in walkways and passageways.
6. Keep power cords away from path of vacuum cleaners and floor polishers.
7. Keep doors fully open or fully closed.
8. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
9. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.

Locker Rooms

1. Upon discovery of wet or soapy floors, take short steps when walking on them.
2. Upon discovery, mop up standing water.
3. When spraying tile and window cleaner, hold the spray bottle at arm's length away and direct the spray away from your face.
4. Open shower curtains slowly.
5. Do not stand on sinks or toilets.
6. Wear latex gloves when handling towels that are visibly stained with blood or other bodily fluids.
7. Do not use latex gloves that have split seams, pinholes, cuts, tears or other signs of visible damage.
8. 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 gloves.

MAINTENANCE PERSONNEL - EQUIPMENT REPAIR, PLUMBING, ELECTRICAL

General Rules

1. Do not handle hot items such as water lines or pool pumps with your bare hands – use cloth gloves.
2. Open the gate valve to release the pressure from the steam lines and turn off the boiler before servicing steam-room equipment.
3. Stop outside work and go indoors during lightning storms.
4. Stay clear of guests playing sports activities such as tennis, racquetball, basketball, football or volleyball.

Ladder Usage

1. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
3. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
4. Allow only one person on the ladder at a time.
5. Face the ladder when climbing up or down.

6. 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.
7. Do not stand on the top two rungs of any ladder.
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 a ladder that wobbles, or leans to the left or right.
10. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
11. Secure the ladder in place by having another employee hold it.
12. Do not place ladders on boxes, concrete blocks, or other unstable bases.
13. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.
14. Do not move a rolling ladder while someone is on it.

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 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 power switch of the tool to “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” nor in an explosive atmosphere such as a paint spray booth.
11. Turn the power switch of electrical tools to “Off” and them 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 remove the ground prong from electrical cords.
14. Do not use an adapter such as a cheater plug that eliminates the ground.
15. Do not plug multiple electrical cords into a single outlet.
16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
17. Do not drive over, drag, step on or place objects on a cord.
18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
23. 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.

24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.
25. 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.

Hand Tool Safety

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
3. Carry all sharp tools in a sheath or holster.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
9. Do not chop at heights above your head when you are working with a hand axe.
10. 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.
11. Do not perform "make-shift" repairs to tools.
12. Do not use "cheaters" on load binders or "boomers."
13. 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.
14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

SAFETY BEST PRACTICE GUIDELINES FOR SIC # 8111 LEGAL SERVICES

COPY/FILE CLERKS, RECEPTIONISTS, RUNNERS

Lifting Best practice guidelines

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 should 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 a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

General Housekeeping

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
8. Keep power cords away from path of vacuum cleaners and floor polishers.

9. Keep doors fully open or fully closed.
10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
13. Straighten or remove rugs and mats that do not lie flat on the floor.
14. Return tools to their storage places after use.
15. Dispose of trash only in trash receptacles.
16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

ATTORNEYS, COURT REPORTERS, RUNNERS

Aggression Control Best practice guidelines

1. If you perceive no immediate physical threat:
 - a. Notify other staff members and have a stand-by to render assistance.
 - b. State clearly who you are, what you can do to help and what your time limits are as a staff member.
2. If you perceive the possibility of severe physical injury:
 - a. Assume a non-threatening physical posture and voice tone.
 - b. State in clear concise terms what you want the individual to do.
 - c. State what you can do to help.
 - d. Speak with authority.
 - e. Make direct commands.
 - f. Set a time limit. At the end of set time, seek assistance from a staff member.
3. If you are assaulted:
 - a. Discontinue care; leave the area.
 - b. Report assault to your supervisor.
 - c. Do not return alone. Bring assistance with you.
4. Breaking up an altercation:
 - a. Do not attempt to break it up alone.
 - b. Call for help from staff members or call security.
 - c. Stay out of the immediate area.
 - d. Wait for help from at least one other person. Do not intervene alone.

Vehicle/Driving Safety

1. Only employer-authorized personnel may operate any county vehicle.
2. Do not operate a vehicle if you are ill or fatigued.
3. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.
4. Shut all doors and fasten seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Do not drive on the road shoulder.

7. Use side and rearview mirrors before making lane changes, turns and sudden stops.

Vehicle Fueling

1. Turn the vehicle off before refueling.
2. Do not smoke while refueling a vehicle.
3. If you spill fuel on your hands, wash with soap and water.
4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
5. If a large fuel spill occurs, do not walk through it; follow your county's reporting and clean up procedure.
6. Always stay in attendance when truck is being refueled.

Vehicle Safety

1. Do not ride in the bed of pick-up trucks.
2. Turn headlights on when driving inside the shop area.
3. Do not drive over 5 miles per hour in the shop area.
4. Shut all doors and fasten your seat belt before moving the vehicle.
5. Obey all traffic patterns and signs at all times.
6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
7. Drive up the slope or down the slope, not across the slope.
8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

Cellular Telephone Safety

1. Do not operate cellular telephone near locations where blasting may be ongoing; watch for signs in construction areas.
2. Use extreme caution when operating the cellular telephone while in a moving vehicle; if possible, pull to the side of the road or exit from traffic.

SECRETARIES, WORD PROCESSORS, OFFICE MANAGERS, ADJUSTERS, COURT REPORTERS, AND PARALEGALS

Office Safety

1. Close drawers and doors immediately after using them.
2. Do not stand on furniture to reach high places.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Open one file cabinet drawer at a time.
5. Put heavy files in the bottom drawers of file cabinets.
6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
7. Use the handle when closing doors, drawers and files.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
9. Do not tilt the chair you are sitting in on its back two legs.
10. Carry pencils, scissors and other sharp objects with the tips pointing down.
11. Use the ladder or step stool to retrieve or store items that are located above your head.

12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
13. Keep the paper cutter handle in the closed or locked position when it is not being used.
14. Do not use paper-cutting devices if the finger guard is missing.
15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
16. Do not use extension or power cords that have the ground prong removed or broken off.
17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
18. Do not place your fingers in or near the feed of a paper shredder.
19. Do not plug multiple electrical cords into a single outlet.
20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
21. Keep doors in hallways fully open or fully closed.
22. Use a staple remover, not your fingers, for removing staples.
23. Turn the power switch to “off” and unplug office machines before adjusting, lubricating or cleaning them.
24. Do not use fans that have excessive vibration, frayed cords or missing guards.
25. Do not place floor type fans in walkways, aisles or doorways.
26. Use the handrails when ascending or descending stairs or ramps.
27. Obey all posted safety and danger signs.
28. Do not use frayed, cut or cracked electrical cords.
29. Do not store or leave items on stairways or walkways.
30. Do not run on stairs or take more than one step at a time.
31. Do not jump from ramps, platforms, ladders or step stools.
32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

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, stable, mobile, swivels and allows operator movement.
3. Adjust your seat height so your knees are about the same level as your hips.
4. Sit straight up in your chair. Where needed, use a footrest that has an adjustable height and is large enough to allow operator movement.
5. Adjust your computer screen and keyboard so they are directly in front of you.
6. Place the keyboard low enough so operator is not required to reach up or out to the keys.
7. Keep wrists and hands in a straight position while key stroking by keeping forearms parallel to the floor and elbows at your sides.
8. Select low frequency vibratory tools and tools that bend at the handle.
9. Select tools by weight for the task to distribute pressure evenly over the hand, to fit your hand size, and to provide a handle that accommodates a relaxed grip position.

LABORATORIES

FOR

COUNTY: **Marion County**

ADDRESS:

FORWARD

This plan is the Chemical Hygiene Plan developed for **Marion County** located at _____ in _____.

This CHP is maintained readily available to laboratory employees at _____. All laboratory personnel should know and follow the best practice guidelines outlined in this plan. All operations performed in the laboratory should be planned and executed in accordance with the enclosed best practice guidelines. In addition, each employee is expected to develop safe personal chemical hygiene habits aimed at the reduction of chemical exposures to themselves and co-workers.

This document was developed to comply with paragraph (e) of the referenced OSHA 1910.1450 standard. **Marion County** should maintain the facilities and best practice guidelines employed in the laboratory compatible with current knowledge and regulations in laboratory safety. This CHP should be reviewed, evaluated and updated at least annually and is readily available to employees, their representatives and any representative of the Assistant Secretary of Labor of OSHA.

Ranking Official

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I. BEST PRACTICE GUIDELINES FOR LABORATORY CHEMICALS

A. Chemical Procurement

1. The decision to procure a chemical should be a commitment to handle and use the chemical properly from initial receipt to ultimate disposal.
2. Requests for procurement of new chemicals should be submitted to the **Chemical Hygiene Officer** for approval. The form entitled "New Chemical Purchasing Request", Appendix C to this plan, should be used for this purpose. Information on proper handling, storage and disposal should be known to all involved personnel prior to the procurement of the chemical. Chemicals utilized in the laboratory should be those which are appropriate for the ventilation system.
3. All chemicals should be received in a central location. Personnel who receive chemical shipments should be knowledgeable of the proper best practice guidelines for receipt. Chemical containers should not be accepted without accounting labels, material safety data sheets and packaging in accordance with all appropriate regulations. All chemical shipments should be dated when received and opened.

B. Chemical Storage

1. Received chemicals should be immediately moved to the designated storage area. Large glass containers should be placed in carrying containers or shipping containers during transportation.
2. The storage area should be well-illuminated, with all storage maintained below eye level. Large bottles should be stored no more than two feet from ground level.
4. Chemicals should be segregated by hazard classification and compatibility in a well-identified area, with local exhaust ventilation.
5. Mineral acids should be separated from flammable and combustible materials. Separation is defined by NFPA 49 as storage within the same fire area but separated by as much space as practicable or by intervening storage from incompatible materials.
6. Acid-resistant trays should be placed under bottles of mineral acids.
7. Acid-sensitive materials such as cyanides and sulfides should be separated from acids or protected from contact with acids.
8. Highly toxic chemicals or other chemicals whose containers have been opened should be stored in unbreakable secondary containers.
9. The storage area should not be used as a preparation or repackaging area.

10. The storage area should be accessible during normal working hours. The storage area is under the control of _____ (Job Title).
11. When chemicals are taken from the storage area, they should be placed in an outside container or bucket.
12. Storage of chemicals at the lab bench or other work areas should be limited to those amounts necessary for one operation or shift. The container size should be the minimum convenient. The amounts of chemicals at the lab bench should be as small as practical. Chemicals in the workplace should not be exposed to sunlight or heat.
13. Stored chemicals should be examined at least annually by the Chemical Hygiene Officer for replacement, deterioration, and container integrity. The inspection should determine whether any corrosion, deterioration, or damage has occurred to the storage facility as a result of leaking chemicals.
14. Periodic inventories of chemicals outside the storage area should be conducted by the Chemical Hygiene Officer. Unneeded items should be properly discarded or returned to the storage area.

C. Chemical Handling

Each laboratory employee with the training, education and resources provided by supervision, should develop and implement work habits consistent with this CHP to minimize personal and coworker exposure to the chemicals in the laboratory. Based on the realization that all chemicals inherently present hazards in certain conditions, exposure to all chemicals should be minimized.

General precautions which should be followed for the handling and use of all chemicals are:

1. Skin contact with all chemicals should be avoided.
2. All employees should wash all areas of exposed skin prior to leaving the laboratory.
3. Mouth suction for pipeting or starting a siphon is prohibited.
4. Eating, drinking, smoking, gum chewing, or application of cosmetics in areas where laboratory chemicals are present should be avoided. These areas have been posted. Hands should be thoroughly washed prior to performing these activities.
5. Storage, handling and consumption of food or beverages should not occur in storage areas, refrigerators, glassware or utensils also used for laboratory operations.
6. Risk determinations should be conservative in nature.

7. Any chemical mixture should be assumed to be as toxic as its most toxic component.
8. Substances of unknown toxicity should be assumed to be toxic.
9. Laboratory employees should be familiar with the symptoms of exposure for the chemicals with which they work and the precautions necessary to prevent exposure.
10. The intent and best practice guidelines of this Chemical Hygiene Plan should be continuously adhered to.
11. In all cases of chemical exposure, neither the Permissible Exposure Limits (PELs) of OSHA or the Threshold Limit Values (TLVs) of the American Conference of Governmental Industrial Hygienists (ACGIH) should be exceeded.
12. The engineering controls and safety equipment in the laboratory should be utilized and inspected in accordance with Appendix A of this plan.
13. Specific precautions based on the toxicological characteristics of individual chemicals should be implemented as deemed necessary by the Chemical Hygiene Officer (see VII-B). These special precautions are listed in Section VIII.

D. Laboratory Equipment and Glassware

Each employee should keep the work area clean and uncluttered. All chemicals and equipment should be properly labeled in accordance with Section I-G. At the completion of each work day or operation, the work area should be thoroughly cleaned and all equipment properly cleaned and stored.

In addition, the following best practice guidelines should apply to the use of laboratory equipment:

1. All laboratory equipment should be used only for its intended purpose.
2. All glassware should be handled and stored with care to minimize breakage; all broken glassware should be immediately disposed of in the broken glass container.
3. All evacuated glass apparatus should be shielded to contain chemicals and glass fragments should implosion occur.
4. Labels should be attached to all chemical containers, identifying the contents and related hazards.
5. Waste receptacles should be identified as such.
6. All laboratory equipment should be inspected on a periodic basis as specified in Appendix A, and replaced or repaired as necessary.

E. Personal Protective Equipment

1. Safety glasses meeting ANSI Z87.1 are required for employees and visitors to the laboratory and should be worn at all times when in the laboratory. Contact lenses are prohibited in the laboratory, except as approved by the Chemical Hygiene Officer and supervisor.
2. Chemical goggles and/or a full face shield should be worn during chemical transfer and handling operations as best practice guidelines dictate.
3. Sandals, perforated shoes, sneakers and bare feet are prohibited. Safety shoes, per ANSI 47 are required where employees routinely lift heavy objects.
4. Lab coats are provided and should be worn in the laboratory. Laboratory coats should be laundered on a periodic basis, not to exceed monthly. Laboratory coats should be removed immediately upon discovery of significant contamination.
5. Appropriate chemical-resistant gloves based on the table in Appendix B should be worn at all times when there may be skin contact with chemicals. Used gloves should be inspected and washed prior to re-use. Damaged or deteriorated gloves should be immediately replaced. Gloves should be washed prior to removal from the hands.
6. Thermal-resistant gloves should be worn for operations involving the handling of heated materials and exothermic reaction vessels. Thermal-resistant gloves should be non-asbestos and should be replaced when damaged or deteriorated.
7. Respirator usage should comply with the OSHA Respiratory Protection Standard, 29 CFR 1910.134, and **Marion County** Respiratory Program.

F. Personal Work Practices

1. Laboratory supervision should ensure that each employee knows and follows the rules and best practice guidelines established in this plan.
2. All employees should remain vigilant to unsafe practices and conditions in the laboratory and should immediately report such practices and/or conditions to the laboratory supervisor. The supervisor should correct unsafe practices and or conditions promptly.
3. Long hair and loose-fitting clothing should be confined close to the body to avoid being caught in moving machine/equipment parts.
4. Use only those chemicals appropriate for the ventilation system.
5. Avoid unnecessary exposure to all chemicals by any route.
6. Do not smell or taste any chemicals.

7. Encourage safe work practices in coworkers by setting the proper example. Horseplay is strictly forbidden.
8. Seek information and advice from knowledgeable persons, standards and codes about the hazards present in the laboratory. Plan operations, equipment and protective measures accordingly.
9. Use engineering controls in accordance with Section III.
10. Inspect personal protective equipment prior to use, and wear appropriate protective equipment as best practice guidelines dictate and when necessary to avoid exposure.

G. Labeling

1. All containers in the laboratory should be labeled. This includes chemical containers and waste containers. The label should be informative and durable, and at a minimum, should identify contents, source, date of acquisition, storage location and indication of hazard.
2. Portable containers should be labeled by the individual using the container.
3. Exemptions for labeling requirements should be made for chemical transfers from a labeled container into a container which is intended only for the immediate use of the employee who performed the transfer.
4. The labeling program should be periodically inspected by the Chemical Hygiene Officer to ensure that labels have not been defaced or removed. The form entitled "Chemical Hazard Audit Checklist", Appendix D to this plan, should be used for this purpose.

II. CRITERIA FOR IMPLEMENTATION OF CONTROL MEASURES

A. Air Sampling

1. Air sampling for evaluating employee exposure to chemical substances should be conducted periodically or as specified by specific codes or regulations.
2. Upon addition of new chemicals or changes in control best practice guidelines, additional air sampling should be considered to determine the exposures. Conduct air sampling if there is reason to believe that exposure levels for regulated substances that require sampling routinely exceed the action level, or in the absence of an action level, the PEL. Air sampling should be implemented when usage of highly toxic substances exceeds three times per week.
3. The results of air sampling studies performed in the laboratory are maintained and recorded on the form shown in Appendix E to this plan.

B. Housekeeping

1. Each laboratory worker is directly responsible for the cleanliness of his or her work space, and jointly responsible for common areas of the laboratory. Laboratory management should insist on the maintenance of housekeeping standards.
2. The following best practice guidelines apply to the housekeeping standards of the laboratory:
 - a) All spills on lab benches or floors should be immediately cleaned and properly disposed of. Large spills should necessitate the implementation of the Emergency Action Plan per OSHA 1910.38 and 1910.120.
 - b) The lab benches should be kept clear of equipment and chemicals except those necessary for the work currently being performed.
 - c) The work area should be cleaned at the end of each operation and each shift.
 - d) All apparatus should be thoroughly cleaned and returned to storage upon completion of usage.
 - e) All floors, aisles, exits, fire extinguishing equipment, eyewashes, showers, electrical disconnects and other emergency equipment should remain unobstructed.
 - f) All labels should face front.
 - g) Chemical containers should be clean, properly labeled and returned to storage upon completion of usage.
 - h) All chemical wastes should be disposed of in accordance with the waste disposal plan.

C. Safety and Emergency Equipment

1. Telephone numbers of emergency personnel, supervisors and other workers as deemed appropriate have been posted.
2. All laboratory personnel should be trained in the proper use of fire extinguishers when hired and annually thereafter. Prior to the procurement of new chemicals, the Chemical Hygiene Officer should verify that existing extinguishers and other emergency equipment are appropriate for such chemicals.
3. All employees who might be exposed to chemical splashes should be instructed in the location and proper usage of emergency showers and eyewashes. The eyewash and emergency shower should be inspected weekly. These inspections should be performed by the laboratory employees. These inspections should be in accordance with ANSI Z358.1 and manufacturer's specifications. Records should be maintained.
4. Location signs for safety and emergency equipment have been posted.

III. ENGINEERING CONTROLS

A. Intent

The engineering controls installed in the laboratory are intended to minimize employee exposure to chemical and physical hazards in the workplace. These controls should be maintained in proper working order for this goal to be realized.

B. Modification

No modification of engineering controls should occur unless testing indicates that worker protection should continue to be adequate.

C. Improper Function

Improper function of engineering controls should be reported to the Chemical Hygiene Officer immediately. The system should be taken out of service until proper repairs have been executed.

D. Usage

All employees should follow proper work practices when using the engineering controls.

1. Local Exhaust Ventilation:

The following best practice guidelines should apply to the use of local exhaust ventilation:

- a) Openings of hoods should be placed as close as possible to sources of the air contaminant.
- b) Clear the screen on the face of the hood prior to usage.
- c) Hood fans should operate when hoods are being used.
- d) After using hoods, operate the fan for an additional period of time sufficient to clear residual contaminants from the ductwork.
- e) The ventilation system should be inspected every three months. The duct velocity should be maintained at 3500 feet per minute, minimum. A record of each inspection should be maintained by the Chemical Hygiene Officer.
- f) Prior to a change in chemicals or best practice guidelines, the adequacy of the ventilation system should be determined by the Chemical Hygiene Officer.

2. Laboratory Hoods:

The laboratory hoods should be utilized for all chemical best practice guidelines which might result in release of hazardous chemical vapors or dust. As a general rule, the hood should be used for all chemical best practice guidelines involving substances which are appreciably volatile and have a permissible exposure limit (PEL) less than 50 ppm.

The following work practices should apply to the use of hoods:

- a) Confirm adequate hood ventilation performance prior to opening chemical containers inside the hood. An inward flow of air can be confirmed by holding a piece of paper at the face of the hood and observing the movement of the paper.

- b) Keep the sash of the hood closed at all times except when adjustments within the hood are being made. At these times, maintain the sash height as low as possible.
- c) Storage of chemicals and equipment inside the hood should be kept to a minimum.
- d) Minimize interference with the inward flow of air into the hood.
- e) Leave the hood operating when it is not in active use if hazardous chemicals are contained inside the hood or if it is uncertain whether adequate general laboratory ventilation should be maintained when the hood is non-operational.
- f) The ventilation system should be inspected every three months. The hood face velocity should be maintained between 75 and 125 feet per minute. A record of each inspection should be maintained by the Chemical Hygiene Officer.
- g) The hood should not be used as a means of disposal for volatile chemicals.
- h) Prior to the introduction of new chemicals, the adequacy of hood ventilation systems should be determined by the Chemical Hygiene Officer.

3. Glove Boxes and Isolation Rooms:

The exhaust air from a glove box or isolation room should pass through scrubbers or other treatment before release into the regular exhaust system.

4. Cold Rooms and Warm Rooms:

In event of electrical failure, the following provisions should be followed:

Storage Cabinets:

Storage cabinets for flammable and hazardous chemicals should be ventilated as needed.

IV. EMPLOYEE INFORMATION AND TRAINING

A. Hazard Information

All employees should be apprised of the hazards presented by the chemicals in use in the laboratory. Each employee should receive training at the time of initial assignment to the laboratory, prior to assignments involving new exposure situations, and at a regular frequency as determined by the Chemical Hygiene Officer.

B. Forms

The forms in Appendices F-H entitled "New Employee Chemical Hygiene Orientation and Training Checklist", "Transfer Chemical Hygiene Training Checklist", and "New Chemical Training Checklist" should be used for these purposes.

C. Training

This training should include methods of detecting the presence of a hazardous chemical, physical and health hazards of chemicals in the lab, and measures employees can take to protect themselves from these hazards. The training should present the details of the Chemical Hygiene Plan, and should include:

1. the contents of the OSHA laboratory standard, and its appendices;
2. the location and availability of the Chemical Hygiene Plan;
3. the permissible exposure limits for OSHA regulated substances or recommended exposure values for other hazardous chemicals not regulated by OSHA which are present in the laboratory;
4. signs and symptoms associated with exposure to the chemicals present in the laboratory;
5. location and availability of reference material on chemical hygiene;
6. training should be conducted by _____ (Job Title).

The following materials are used during training:

Audiovisual Programs

Written Materials

Other Training Materials

V. PRIOR APPROVAL OF LABORATORY ACTIVITIES

A. Permit System

A permit system should be used for laboratory activities which present specific, foreseeable hazards to the employees. These activities include off-hours work, sole occupancy of building, hazardous operations and unattended operations. The permit entitled "Chemical Hygiene Permit" is included in Appendix I to this plan and should be executed prior to the performance of these activities.

1. Off-Hours Work Best practice guidelines:

Laboratory personnel are not permitted to work after hours in the lab, except when permitted.

2. Sole Occupancy:

At no time should work be performed in the laboratory when the only person in the building is the laboratory person performing the work. Under unusual conditions, crosschecks, periodic security guard checks, closed circuit television, or other measures may be taken when permitted.

3. Hazardous Work:

All hazardous operations are to be performed during a time when at least two personnel are present at the laboratory. At no time should a laboratory person, while working alone in the laboratory, perform work which is considered hazardous. The determination of hazardous operations should be made by the laboratory supervisor and permitted.

4. Unattended Operations:

When laboratory operations are performed which should be unattended by laboratory personnel (continuous operations, overnight reactions, etc.), the following best practice guidelines should be employed:

- a) The permit system should be utilized.
- b) The laboratory supervisor should review work best practice guidelines to ensure for the safe completion of the operation.
- c) An appropriate sign should be posted at all entrances to the laboratory.
- d) The overhead lights in the laboratory should be left on.
- e) Precautions should be made for the interruption of utility service during the unattended operation (loss of water pressure, electricity, etc.).
- f) The person responsible for the operation should return to the laboratory at the conclusion of the operation to assist in the dismantling of the apparatus.

VI. MEDICAL CONSULTATIONS AND EXAMINATIONS

A. Opportunity for Medical Attention

An opportunity to receive medical attention is available to all employees who work with hazardous chemicals in the laboratory. The opportunity for medical attention should be made available to employees under the following circumstances:

1. Whenever an employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed in the laboratory,
2. Medical surveillance programs should be established where exposure monitoring reveals an exposure level above the action level for an OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements, and/or,
3. Whenever an event takes place in the laboratory such as a spill, leak, explosion or other occurrence resulting in the likelihood of a hazardous exposure the employee

should be provided an opportunity for medical consultation for the purpose of determining the need for medical examination.

B. Cost

These medical consultations and examinations should be provided without cost to the employees, without loss of pay and at a reasonable time and place.

C. Supervision

These medical consultations and examinations should be administered by or under the direct supervision of a licensed physician. A current list of available physicians is maintained by the Chemical Hygiene Officer. Employees seeking the opportunity of medical consultation should request the listing from the Chemical Hygiene Officer.

VII. CHEMICAL HYGIENE RESPONSIBILITIES

A. Chief Executive Officer

_____ has the ultimate responsibility for chemical hygiene throughout the laboratory and with assistance of other program administrators, should provide continued support for chemical hygiene.

B. Chemical Hygiene Officer

The Chemical Hygiene Officer should:

1. work with administrators and other employees to develop and implement appropriate chemical hygiene policies and practices,
2. monitor procurement and use of chemicals in the lab, including determining that facilities and training levels are adequate for the chemicals in use,
3. perform regular, formal chemical hygiene and housekeeping inspections including inspections of emergency equipment,
4. help project directors develop precautions and adequate facilities,
5. maintain current knowledge concerning the legal requirements of regulated substances in the laboratory,
6. review and improve the Chemical Hygiene Plan on an annual basis,
7. maintain overall responsibility for the laboratory operation,

8. ensure that workers know and follow the chemical hygiene rules,
9. determine the proper level of personal protective equipment, ensure that such protective equipment is available and in working order,
10. ensure that appropriate training has been provided to employees,
11. monitor the waste disposal program.

C. Laboratory Workers

The laboratory workers are individually responsible for:

1. planning and conducting each laboratory operation in accordance with the Chemical Hygiene Plan,
2. developing good personal chemical hygiene habits.

VIII. SPECIAL PRECAUTIONS

When laboratory best practice guidelines change to require the use of additional classifications of chemicals (allergens, embryotoxins, teratogens, carcinogens, etc.), additional special precautions should be implemented as deemed necessary by the Chemical Hygiene Officer. The permit system should be utilized for all special activities. All questions regarding the use of the permit system should be addressed to the Chemical Hygiene Officer.

A. Working with Allergens and Embryotoxins (Special Precautions)

10. Suitable gloves to prevent hand contact should be worn when exposed to allergens or substances of unknown allergen activity.
11. Women of child-bearing age should handle embryotoxins only in a hood with confirmed satisfactory performance and should use protective equipment to prevent skin contact as prescribed by the supervisor and Chemical Hygiene Officer.
12. Embryotoxins should be stored in adequately ventilated areas in unbreakable secondary containers.
13. The supervisor and Chemical Hygiene Officer should be notified of spills and other exposure incidents. A physician should be consulted when appropriate.

B. Working with Chemicals of Moderate Chronic or High Acute Toxicity (Special Precautions)

1. Areas where these chemicals are stored and used are of restricted access and have special warning signs.
2. A special hood with a minimum face velocity of 60 linear feet per minute or other containment device should be used. Released vapors should not discharge with the hood exhaust, but should be trapped.
3. Gloves and long sleeves should be used. Hands and arms should be washed immediately after working with these chemicals.
4. Two people should always be present during work with these chemicals.

C. Working with Chemicals of High Chronic Toxicity (Special Precautions)

1. All transfer and work with these substances should be in a designated area: a restricted access hood, glove box or portion of lab.
2. Approval of the supervisor should be obtained before use.
3. Vacuum pumps should have scrubbers or high efficiency particulate absolute (HEPA) filters.
4. Any contaminated equipment or glassware should be decontaminated in the hood before removing them from the designated area.
5. For powders, a wet mop or vacuum with a HEPA filter should be used for cleanup.
6. The designated area should be marked with warning and restricted access signs.
7. Containers should be stored in a ventilated, limited access area in labeled, unbreakable, chemically resistant, secondary containers.

D. Working with Animals and Chemicals of High Chronic Toxicity (Special Precautions)

1. For large scale studies, special facilities with restricted access should be provided.
2. The substance should be administered by injection or gavage when possible rather than by diet. When diet is used, a caging system under negative pressure or under laminar air flow directed toward HEPA filters should be used.
3. Best practice guidelines should be used to minimize contaminated aerosols from food, urine and feces:
 - a) HEPA filtered vacuum equipment for cleaning.
 - b) Moisten contaminated bedding before removal from cage.
 - c) Mix diets in closed containers in hood.

4. Plastic or rubber gloves and fully buttoned lab coats should be worn in the animal room.

IX. RECORDKEEPING

- A. Accident investigations should be conducted by the immediate supervisor with assistance from other personnel as deemed necessary.
- B. Accidents reports should be rewritten and retained for _____.
- C. Exposure records for hazardous chemicals and harmful physical agents should be maintained for 30 years per 29 CFR 1910.20.
- D. Medical records for employees exposed to hazardous chemicals and harmful physical agents should be maintained for the duration of employment plus 30 years per 29 CFR 1910.20.
- E. Inventory and usage records for high risk substances (amounts of substances on-hand, amounts used and names of workers involved) should be maintained for _____.
- F. Records of inspections of equipment should be maintained for _____.
- G. Records of employee training should be maintained for _____.

X. CHEMICAL SPILLS, RELEASES AND ACCIDENTS

In the event of a chemical spill, release or other accident, _____ should adhere to the best practice guidelines outlined in the Emergency Response plan as required by OSHA standard 29 CFR 1910.38 and 1910.120.

XI. ANNUAL CHEMICAL HYGIENE PLAN AUDIT

The Chemical Hygiene Officer should conduct an audit of all phases of the Chemical Hygiene Plan each year. Results should be provided to the ranking official and the laboratory manager. Supervisors are responsible for taking corrective action.

XII. REFERENCES AND RECOMMENDED READING

National Research Council, *Prudent Practices for Handling Hazardous Chemicals in Laboratories*, National Academy Press, Washington, D.C. 1981.

National Research Council, *Prudent Practices for Disposal of Chemicals from Laboratories*,

National Academy Press, Washington, D.C., 1983.

Freeman, N.T., *Introduction to Safety in the Chemical Laboratory*, Academy Press, 1982.
Manufacturing Chemists' Association, Inc., *Guide For Safety In The Chemical Laboratory*,
D.Van Nostrand County, Inc., 1954.

Green, Michael E., *Safety In Working With Chemicals*, MacMillan Publishing Co., Inc. 1978.
Pipitone, David A., *Safe Storage of Laboratory Chemicals*, Wiley & Sons, Inc. 1984.

Code of Federal Regulations, 29 CFR part 1910 subpart Z section 1910.1450, *Occupational
Exposure to Hazardous Chemicals in Laboratories*, 1990.

Confined Space Safety Program

For
Marion County

1. BACKGROUND

A confined space is defined as any location that has limited openings for entry and egress, is not intended for continuous employee occupancy, and is so enclosed that natural ventilation may not reduce air contaminants to levels below the threshold limit value (TLV). Examples of confined spaces include: manholes, stacks, pipes, storage tanks, trailers, tank cars, pits, sumps, hoppers, and bins. Entry into confined spaces without the proper precautions could result in injury and/or impairment or death due to:

- * An atmosphere that is flammable or explosive,
- * Lack of sufficient oxygen to support life,
- * Contact with or inhalation of toxic materials, or
- * General safety or work area hazards such as steam or high pressure materials.

The overall objectives of this procedure are to provide the minimum safety requirements to be followed while entering, exiting and working in confined spaces during environmental restoration work. This chapter provides pertinent details on the following:

- * Duties and responsibilities,
- * Identification and evaluation,
- * Hazard assessment,
- * Hazard controls,
- * Entry permits,
- * Entry best practice guidelines,
- * Opening a confined space,
- * Atmospheric testing,
- * Isolation and lockout/tagout safeguards,
- * Ingress/egress safeguards,
- * Warning signs and symbols,
- * Training, and
- * Emergency response

2. DUTIES AND RESPONSIBILITIES

1. _____

This individual is responsible for implementing the confined space program in accordance with this procedure.

2. _____ is responsible for implementing the confined space program and:

- * Ensuring that a list of confined spaces is maintained,
- * Ensuring that cancelled permits are reviewed for lessons learned,
- * Ensuring training of personnel is conducted,
- * Ensuring coordination with outside responders,
- * Ensuring equipment is in compliance with standards, and
- * Maintaining a master inventory of identified confined spaces.

3. _____ is in charge of any confined space work and:

- * Ensuring requirements for entry have been completed before entry is authorized;
- * Ensuring confined space monitoring is performed by personnel qualified and trained in confined space entry best practice guidelines;
- * Ensuring a list of monitoring equipment and personnel qualified to operate the equipment is maintained by the Safety and Occupational Health Office;
- * Ensuring that the rescue team has simulated a rescue in a confined space within the past twelve months;
- * Knowing the hazards that may be faced during entry, including the mode, signs or symptoms, and consequences of exposure;
- * Filling out a permit;
- * Determining the entry requirements;
- * Requiring a permit review and signature from the authorized entry supervisor;
- * Notifying all involved employees of the permit requirements;
- * Posting the permit in a conspicuous location near the job;
- * Renewing the permit or have it reissued as needed (a new permit is required every shift);
- * Determining the number of attendants required to perform the work;
- * Ensuring the attendant knows how to communicate with the entrants and how to obtain assistance;
- * Posting any required barriers and signs;
- * Remaining alert to changing conditions that might affect the conditions of the permits, (i.e., require additional atmospheric monitoring or changes in personal protective equipment);

- * Changing and reissuing the permit, or issue a new permit as necessary;
- * Ensuring periodic atmospheric monitoring is done according to permit requirements;
- * Ensuring that personnel doing the work and all support personnel adhere to permit requirements;
- * Ensuring the permit is canceled when the work is done; and
- * Ensuring the confined space is safely closed and all workers are cleared from the area.

4. Entry Supervisors

An Entry Supervisor is a qualified person authorized to approve confined space entry permits and is responsible for:

- * Determining if conditions are acceptable for entry,
- * Authorizing entry and overseeing entry operations,
- * Terminating entry best practice guidelines as required,
- * Serving as an attendant, as long as the person is trained and equipped appropriately for that role,
- * Ensuring measures are in place to keep unauthorized personnel clear of the area,
- * Checking the work at least twice a shift to verify and document permit requirements are being observed (more frequent checks should be made if operations or conditions are anticipated that could affect permit requirements),
- * Ensuring that necessary information on chemical hazards is kept at the work site for the employees or rescue team,
- * Ensuring a rescue team is available and instructed in their rescue duties (e.g., an onsite team or a prearranged outside rescue service), and
- * Ensuring at least one member of the rescue team has current certification in first aid and CPR.

5. Employees Entering Confined Space (Entrants)

Employees who are granted permission to enter a confined space are responsible for:

- * Reading and observing the entry permit requirements;
- * Staying alert to the hazards that could be encountered in a confined space;
- * Using the protective equipment required by the permit;
- * Immediately exit the confined space when:
 - Ordered to do so by the attendant,
 - Automatic alarms sound,

- They perceive they are in danger, or
- They notice physiological stresses or changes in themselves or co-workers (e.g., dizziness, blurred vision, shortness of breath).

6. Attendant

The Attendant should be stationed outside the work space and should:

- * Be knowledgeable of, and be able to recognize potential confined space hazards;
- * Maintain a sign-in/sign-out log with a count of all persons in the confined space and ensure all entrants sign in/sign-out;
- * Monitor surrounding activities to ensure the safety of personnel;
- * Maintain effective and continuous communication with personnel during confined space entry, work and exit;
- * Order personnel to evacuate the confined space if he/she:
 - Observes a condition which is not allowed on the entry permit;
 - Notices the entrants acting strangely, possibly as a result of exposure to hazardous substances;
 - Notices a situation outside the confined space which could endanger personnel;
 - Notices within the confined space a hazard which has not been previously recognized or taken into consideration;
 - Should leave his/her work station; or
 - Should focus attention on the rescue of personnel in some other confined space that he/she is monitoring;
- * Immediately summon the Rescue Team if crew rescue becomes necessary; and
- * Keep unauthorized persons out of the confined space, order them out, or notify authorized personnel of the unauthorized entry.

7. Rescue Team

The Rescue Team members should:

- * Complete a training drill using mannequins or personnel in a simulation of the confined space prior to the issuance of an entry permit for any confined space and at least annually thereafter;
- * Respond immediately to rescue calls from the Attendant or any other person recognizing a need for rescue from the confined space;
- * In addition to emergency response training, receive the same training as that required of the authorized entrants; and
- * Have current certification in first-aid and CPR.

3. Identification and Evaluation

The Project Manager should ensure a survey is conducted of the work site to identify confined spaces. This survey can be partially completed from initial and continuing site characterizations, as well as other available data (e.g. blueprints, job safety analysis). The purpose of the survey is to develop an inventory of those locations and/or equipment that meet the definition of a confined space. This information should be communicated to personnel and appropriate best practice guidelines developed prior to entry. The initial surveys should include air monitoring to determine the air quality in the confined spaces. The following situations should be evaluated by competent personnel:

- * Flammable or explosive potential,
- * Oxygen deficiency, and
- * Presence of toxic and corrosive material.

1. Hazard Re-Evaluation

The Project Manager should ensure the identification and re-evaluation of the hazards based on possible changes in activities, and/or other physical or environmental conditions, which could adversely affect work. A master inventory of confined spaces should be maintained. Any change in designation of a confined space should be routed through the Site Safety and Health Officer (SSHO) for review, prior to the change being made.

4. Hazard Assessment

A hazard assessment should be completed prior to any entry into a confined space. The hazard assessment should identify the sequence of work to be performed in the confined space, the specific hazards known or anticipated, and the control measures to be implemented to eliminate or reduce each of the hazards to an acceptable level. No entry should be permitted until the hazard assessment has been reviewed and discussed by all persons engaged in the activity. Personnel who enter confined spaces should be informed of known or potential hazards associated with the confined spaces to be entered.

5. Hazard Controls

Hazard controls include changes in the work processes and/or working environment with the objective of:

- * Controlling the health hazards either by eliminating the responsible agents,
- * Reducing health hazards below harmful levels, and

- * Preventing the contaminants from coming into contact with the workers.

The following order of precedence should be followed in reducing confined space risks:

- * Engineering controls, such as ventilation to limit exposure to hazards;
- * Work practice controls, such as wetting of hazardous dusts, frequent cleaning; and
- * Use of PPE, such as air purifying or supplied-air respirators.

1. Engineering Controls

Engineering controls are those controls which eliminate or reduce the hazard through implementation of sound engineering practices.

Ventilation is one of the most common engineering controls used in confined spaces. When ventilation is used to remove atmospheric contaminants from the confined space, the space should be ventilated until the atmosphere is within the acceptable ranges. Ventilation should be maintained during the occupancy if there is a potential for the atmospheric conditions to move out of the acceptable range. When ventilation is not possible or feasible, alternate protective measures or methods to remove air contaminants and protect occupants should be determined by the qualified person prior to authorizing entry. Conditions regarding continuous forced air ventilation should be used as follows:

- * Employees should not enter the space until the forced air ventilation has eliminated any hazardous atmosphere,
- * Forced air ventilation should be so directed as to ventilate the immediate areas where an employee is or should be present within the space,
- * Continuous ventilation is maintained until all employees have left the space, and
- * Air supply for forced air ventilation should be from a clean source.

2. Work Practice (Administrative) Controls

Work practice (administrative) controls are those controls which eliminate or reduce the hazard through changes in the work practice (e.g., rotating workers, reducing the amount of worker exposure, housekeeping). Confined spaces should be cleaned/decontaminated of hazardous materials to the extent feasible before entry. Cleaning/decontamination should be the preferred method of reducing exposure to hazardous materials. Where this is not practicable, PPE should be worn by the entry personnel to provide appropriate protection against the hazards which may be present.

3. Personal Protective Equipment (PPE)

If the hazard cannot be eliminated or reduced to a safe level through engineering and/or work practice controls, PPE should be used. A qualified person should determine PPE needed by all personnel entering the confined space, including rescue teams. PPE which meet the specifications of applicable standards should be selected in accordance with the requirements of the job to be performed.

6. Entry Permits

The Confined Space Entry Permit is the major tool in assuring safety during entry in confined spaces with known hazards or with unknown or potentially hazardous atmospheres. The entry permit process guides the supervisor and workers through a systematic evaluation of the space to be entered. The permit should be used to establish appropriate conditions. Before each entry into a confined space, an entry permit should be completed by a qualified person and the contents communicated to all employees involved in the operation and conspicuously posted near the work location. A standard entry permit should be used for all entries.

1. Key Elements for Entry Permits

A standard entry permit should contain the following items:

- * Permit space to be entered;
- * Purpose of the entry;
- * Date of the permit and the authorized duration of the entry permit,
- * Name of authorized entrants within the permit space;
- * Means of identifying authorized entrants inside the permit space, e.g., rosters or tracking systems;
- * Personnel, by name, currently serving as attendants,
- * Individual, by name, currently serving as entry supervisor, with a space for the signature or initials of the entry supervisor who originally authorized entry,
- * Hazards of the permit space to be entered,
- * Measures used to isolate the permit space and to eliminate or control permit space hazards before entry, e.g., lockout or tagout of equipment and best practice guidelines for purging, inerting, ventilating, and flushing permit spaces;
- * Acceptable entry conditions,

- * Results of initial and periodic tests performed, accompanied by the names or initials of the testers and by an indication of when the tests were performed;

- * Rescue and emergency services that can be summoned and the means, (e.g., equipment to use, phone numbers to call) for summoning those services,
- * Communication best practice guidelines used by authorized entrants and attendants to maintain contact during the entry,
- * Equipment to be provided for compliance with this section, (e.g., PPE, testing, communications, alarm systems, and rescue);
- * Other information whose inclusion is necessary, given the circumstances of the particular confined space, in order to ensure employee safety; and
- * Additional permits, such as for hot work, that have been issued to authorize work on the permit space.

A permit is only valid for one shift. For a permit to be renewed, several conditions should be met before each re-entry into the confined space. First, atmospheric testing should be conducted and the results should be within acceptable limits. If atmospheric test results are not within acceptable limits, precautions to protect entrants against the hazards should be addressed on the permit and should be in place. Second, a qualified person should verify that all precautions and other measures called for on the permit are still in effect. Finally only operations or work originally approved on the permit should be conducted in the confined space.

A new permit should be issued or the original permit reissued whenever changing work conditions or work activities introduce new hazards into the confined space. The employer should retain each cancelled entry permit for at least one year to facilitate the review of the confined space entry program. Any problems encountered during an entry operation should be noted on the pertinent permit so that appropriate revisions to the confined space permit program can be made.

7. Entry Best practice guidelines

Whenever entry into a confined space is needed, either an Entry Supervisor or the person in charge of the job may initiate entry best practice guidelines, including the completion of a confined space entry permit. Entry into a confined space should follow the standard entry procedure.

The following are requirements for standard entry:

- * Training to establish personnel proficiency in the duties required,
- * Atmospheric testing for entry, and
- * Atmospheric monitoring during the entry.

Before an employee enters the space, the internal atmosphere should be tested with a calibrated, direct-reading instrument. If a hazardous atmosphere is detected during entry:

- * The space should be evaluated to determine how the hazardous atmosphere developed, and
- * Measures should be implemented to protect employees before any subsequent entry takes place.

Personnel should be prohibited from entering hazardous atmospheres without wearing proper respiratory equipment as determined by qualified entry supervisors. The entire confined space entry permit should be completed for a standard entry. Entry should be allowed only when all requirements of the permit are met and it is reviewed and signed by an Entry Supervisor.

8. Opening a Confined Space

Any conditions making it unsafe to remove an entrance cover should be eliminated before the cover is removed. When entrance covers are removed, the opening should be promptly guarded by a railing, temporary cover, or other temporary barrier that should prevent anyone from falling through the opening. This barrier or cover should protect each employee working in the space from foreign objects entering the space. If it is in a traffic area, adequate barriers should be erected.

9. Atmospheric Testing

Atmospheric test data is needed prior to entry into any confined space. Atmospheric testing is required for two distinct purposes: evaluation of the hazards of the permit space and verification that acceptable conditions exist for entry into that space. If a person should go into the space to obtain the needed data, then Standard Confined Space Entry Best practice guidelines should be followed (i.e., rescue team, attendant, entry supervisor). Before entry into a confined space, a qualified person should conduct testing for hazardous atmospheres. The internal atmosphere should be tested with a calibrated, direct-reading instrument for the following, in the order given:

- * Oxygen content,
- * Flammable gases and vapors, and
- * Potential toxic air contaminants.

Testing equipment used in specialty areas should be listed or approved for use in such areas. This listing or approval should be from nationally recognized testing laboratories such as Underwriters Laboratories or Factory Mutual Systems.

1. Evaluation Testing

The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity. The analysis should identify and evaluate any hazardous atmospheres that may exist or arise, so that appropriate permit entry best practice guidelines can be developed and acceptable entry conditions stipulated for that space. Evaluation and interpretation of these data and development of the entry procedure should be done by, or reviewed by, a technically qualified professional (e.g., OSHA consultation service, certified industrial hygienist, registered safety engineer, certified safety professional).

2. Verification Testing

A confined space which may contain a hazardous atmosphere should be tested for residues of all identified or suspected contaminants. The evaluation testing should permit specified equipment to determine that residual concentrations at the time of testing and entry are within acceptable limits. Results of testing (i.e., actual concentration) should be recorded on the permit. The atmosphere should be periodically retested to verify that atmospheric conditions remain within acceptable entry parameters. Initial testing of atmospheric conditions and subsequent tests after a job has been stopped should be done with the ventilation systems shut down. If the confined space is vacated for any period of time, the atmosphere of the confined space should be retested before re-entry is permitted. Further testing should be conducted with ventilation systems turned on to ensure the contaminants are removed and that the ventilation system is not causing a hazardous condition.

3. Acceptable Limits

The atmosphere of the confined spaces should be considered within acceptable limits whenever the following conditions are maintained:

- * Oxygen - 19.5% to 23.5%,
- * Flammability - less than 10% of the Lower Flammable Limit (LFL), and
- * Toxicity - less than recognized ACGIH exposure limits or other published exposure levels (e.g. OSHA PELs, NIOSH RELs).

Whenever testing of the atmosphere indicates levels of oxygen, flammability, or toxicity that are not within acceptable limits, entry should be prohibited until appropriate controls are implemented. If the source of the contaminant cannot be determined, precautions should be adequate to deal with the worst possible condition in the confined space. If there is the possibility that the confined space atmosphere can become unacceptable while the work is in progress, the atmosphere should be constantly monitored and best practice guidelines and equipment should be provided to allow the employees to quickly and safely exit the confined space.

10. Isolation and Lockout / Tagout Safeguards

All energy sources which are potentially hazardous to confined space entrants should be secured, relieved, disconnected and/or restrained before personnel are permitted to enter the confined space. Equipment systems or processes should be locked out or tagged out or both per 29 CFR 1910.147 and ANSI Z244.1-1982, Lockout/Tagout of Energy Sources prior to permitting entry into the confined space. The current lockout/tagout program being used at the site should be used as guidance. In confined spaces where complete isolation is not possible, provisions should be made for as rigorous isolation as practical. Special precautions should be taken when entering double walled, jacketed, or internally insulated confined spaces that may discharge hazardous material through the vessel's internal wall.

Where there is a need to test, position or activate equipment by temporarily removing the lock or tag or both, a procedure should be developed and implemented to control hazards to the occupants. Any removal of locks, tags, or other protective measures should be done in accordance with ANSI Z244.1-1982.

11. Ingress / Egress Safeguards

Means for safe entry and exit should be provided for confined spaces. Each entry and exit point should be evaluated to determine the most effective methods and equipment to be utilized to enable employees to safely enter and exit the confined space.

Appropriate retrieval equipment or methods should be used whenever a person enters a confined space. Use of retrieval equipment may be waived by the designated qualified persons if use of the equipment increases the overall risks of entry or does not contribute to the rescue. A mechanical device should be available to retrieve personnel from vertical type confined spaces greater than five feet in depth.

12. Warning Signs and Symbols

All confined spaces that could be inadvertently entered should have signs identifying them as confined spaces. Signs should be maintained in a legible condition. The signs should contain a warning that a permit is required before entry. Accesses to all confined spaces should be prominently marked.

13. Training

Marion County should provide training so that all employees whose work is regulated by this section acquire the understanding, knowledge, and skills necessary for the safe performance of their duties in confined spaces. Training should be provided to each affected employee:

- * Before the employee is first assigned duties under this section,
- * Before there is a change in assigned duties,
- * Whenever there is a change in permit space operations that presents a hazard for which an employee has not been trained, and
- * Whenever the employer has reason to believe either that there are deviations from the permit space entry best practice guidelines required in this section or that there are inadequacies in the employee's knowledge or use of these best practice guidelines.

The training should establish employee proficiency in the duties required by this section and should introduce new or revised best practice guidelines, as necessary, for compliance with this section.

1. General Training

All employees who should enter confined spaces should be trained in entry best practice guidelines. Personnel responsible for supervising, planning, entering or participating in confined space entry and rescue should be adequately trained in their functional duties prior to any confined space entry. Training should include:

- * Explanation of the general hazards associated with confined spaces;
- * Discussion of specific confined space hazards associated with the facility, location or operation;
- * Reason for, proper use, and limitations of PPE and other safety equipment required for entry into confined spaces;
- * Explanation of permits and other procedural requirements for conducting a confined space entry;
- * A clear understanding of what conditions would prohibit entry;

- * How to respond to emergencies;
- * Duties and responsibilities as a member of the confined space entry team; and
- * Description of how to recognize symptoms of overexposure to probable air contaminants in themselves and co-workers, and method(s) for alerting attendants.

Refresher training should be conducted as needed to maintain employee competence in entry best practice guidelines and precautions.

2. Specific Training

1. Training for Atmospheric Monitoring Personnel

Training should include proper use of monitoring instruments such as:

- * Proper use of the equipment;
- * Knowledge of calibration;
- * Knowledge of sampling strategies and techniques; and
- * Knowledge of PELs, TLVs, LELs, UELs, etc.

2. Training For Attendants

Training should include the following:

- * Best practice guidelines for summoning rescue or other emergency services, and
- * Proper utilization of equipment used for communicating with entry and emergency/rescue personnel.

3. Training for Emergency Response Personnel

Training should include:

- * Rescue plan and best practice guidelines developed for each type of confined space that are anticipated to be encountered,
- * Use of emergency rescue equipment,
- * First aid and CPR techniques, and
- * Work location and confined space configuration to minimize response time.

4. Verification of Training

Periodic assessment of the effectiveness of employee training should be conducted by a qualified person. Training sessions should be repeated as often as necessary to maintain an acceptable level of personnel competence.

14. Emergency Response

1. Emergency Response Plan

A plan of action should be written with provisions to conduct a timely rescue for individuals in a confined space should an emergency arise.

2. Retrieval Systems or Methods to Facilitate Non-entry Rescue

Retrieval systems should be used whenever an authorized person enters a permit space, unless the equipment increases the overall risk of entry or the equipment would not contribute to the rescue of the entrant. Retrieval systems should have a chest or full body harness and a retrieval line attached at the center of the back near shoulder level or above the head. If harnesses are not feasible or create a greater hazard, wristlets may be used in lieu of the harness. The retrieval line should be firmly fastened outside the space so that rescue can begin as soon as anyone is aware that retrieval is necessary. A mechanical device should be available to retrieve personnel from vertical confined spaces more than five feet deep.

EMERGENCY ACTION PLAN

Marion County

SCOPE

The following Emergency Action Plan applies to all situations where a particular OSHA Standard specifies that a plan be established.

ELEMENTS

A. Emergency Escape Best practice guidelines and Routes

Emergency escape best practice guidelines and route assignments have been posted in each work area and all employees have been trained by supervision in the correct best practice guidelines to follow. New employees are trained when assigned to the work area. A sample escape procedure and route sheet that is posted in work areas is attached.

B. Best practice guidelines for Employees Who Remain to Operate Critical Operations Before They Evacuate

The attached sheet describes those operations, best practice guidelines, and personnel required for critical operations before the assigned personnel evacuate during emergency situations. A description of the special training provided is also included.

C. Employee Accountability Best practice guidelines After Evacuations

Each county supervisor is responsible for accounting for all their assigned employees by the supervisor or his or her designee by reporting go to a predetermined, designated rally point and conduction a head count. Each assigned employee should be accounted for by name. All supervisors are required to report their head count (by name) to the Emergency Evacuation Coordinator. A summary of the evacuation ally points and the supervisors and their assigned employees who should report to the designated rally point is attached.

D. Rescue and Medical Duties

Specific rescue and medical duties have been assigned to designated county individuals. These personnel have received special training and instructions to properly carry out these assignments. A list of individuals assigned and a summary of their training is attached for review.

E. Preferred Means of Reporting Fire and Emergencies

All county fires and emergencies should be reported by:

F. Emergency and Fire Protection Coordinator

The County's Emergency and Fire Protection Plan Coordinator:

Name	Title
------	-------

Department: _____

Telephone No.: _____

The Coordinator may be contacted for further information or explanation of the County's Emergency and Fire Protection Plans.

G. Alarm System

County employee alarm systems for notifying all employees in case of an emergency are:

When required by specific OSHA standards, the county should comply with OSHA standard 1910.165.- Employees Alarm Systems. These requirements are shown on the attached sheet.

H. Fire Protection and Prevention Assignments

Appropriate county personnel have been assigned specific fire protection and prevention responsibilities. Fire prevention equipment should be routinely inspected and tested. Systems that can increase the likelihood or severity of a fire should be inspected and maintained.

EMPLOYEE ACCOUNTABILITY FOLLOWING AN EMERGENCY EVACUATION

Each county supervisor is responsible for accounting for each of his or her assigned employees following an emergency evacuation. This should be accomplished by following the best practice guidelines shown below.

Employee Accountability

1. Rally points have been established for all county evacuation routes and best practice guidelines. These points are designated on each posted work area escape route.
2. All work area supervisors and employees should report to their designated rally points immediately following an evacuation.
3. Each employee is responsible for reporting to his or her supervisor so an accurate headcount can be made. Supervisors should check off all those reporting and report those not checked off as missing to the Emergency Evacuation coordinator.
4. The Emergency Evacuation coordinator should be located at one of the following locations:
 - A. Primary Location:

 - B. Secondary Location:

5. The Emergency Evacuation Coordinator should determine the method that should be utilized to locate missing personnel.

EMERGENCY ESCAPE PRODECURES AND ESCAPE ROUTE ASSIGNMENT

WORKAREA:

SKETCH:

Supervisor and Employee Rally Points

SPECIAL INSTRUCTIONS:

EMERGENCY PLAN AND FIRE PROTECTION COORDINATOR: _____

Signature: _____

Date: _____

EMPLOYEE ALARM SYSTEM REQUIREMENTS
REF: OSHA Standard 1910.165

Requirement	Reference	Meets the Requirement
1. Provides warning for safe escape	(b)(1)	_____
2. Can be perceived by all employees	(b)(2)	_____
3. Alarm is distinctive and recognizable	(b)(3)	_____
4. Employees properly trained	(b)(4)	_____
5. Emergency telephone numbers posted.	(b)(4)	_____
6. Emergency alarms have priority	(b)(4)	_____
7. Alarm best practice guidelines established.	(b)(5)	_____
8. All alarm components are approved.	(c)(1)	_____
9. Alarms restored promptly after testing.	(c)(2)	_____
10. Spare alarm devices available.	(c)(2)	_____
11. Alarm system maintained properly.	(d)(1)	_____
12. Effective alarm tests conducted every 2 months	(d)(2)	_____
13. Power supplies maintained and back-ups provided.	(d)(3)	_____
14. Supervised systems provide positive notification of any defect and are tested annually.	(d)(4)	_____
15. Alarms maintained properly by trained personnel.	(d)(5)	_____
16. All manually operated devices should not be obstructed and readily accessible.	(e)	_____

Note: The above requirements apply to all emergency employee alarms installed to meet a particular OSHA standard.

Best practice guidelines for Employees Who Remain to Operate Critical Operations before They Evacuate

This document describes those operations, best practice guidelines, and personnel required for critical operations before the assigned personnel evacuate during emergency situations. A description of the special training provided is also included.

Critical Operation and Best practice guidelines

Personnel Remaining in the Critical Operation

Special Training Provided

Occupational Exposure to Bloodborne Pathogens

1910.1030 Exposure Control Plan

Best Practice Guidelines

Marion County is committed to providing a safe and healthful work environment for our work force. In pursuit of this endeavor, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to blood borne pathogens In accordance with OSHA standard 29 CFR 1910.1030, “Occupational Exposure to Blood borne Pathogens”.

The ECP is a key document to assist our organization in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- Determining exposure risks of personnel
- Implementation of various methods of exposure control including:
 - Engineering controls
 - Work practice controls
 - Personal protection equipment
 - Universal precautions
 - Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Hazard notification
- Training
- Recordkeeping
- Accident investigation

PROGRAM ADMINISTRATION

- _____ is (are) responsible for the implementation of the ECP. _____ should maintain, review, and update the ECP at least annually.
Contact location/phone number _____.
- Those employees determined to have likely occupational exposure to blood or other potentially infectious materials (OPIM) in the course of performing their job duties should comply with the best practice guidelines and work practices outlined in this ECP.
- _____ should maintain and provide all selections of Personal Protective Equipment (PPE), engineering controls (e.g. sharps containers) and Hazard Notification as required by the standard. _____ should check that adequate supplies of the aforementioned equipment are available in appropriate selections and sizes. Contact location/phone number _____.
- _____ should be responsible for ensuring that all medical actions required are performed and that appropriate employee post exposure and hepatitis vaccines are maintained. Contact location/phone number _____.

- _____ should be responsible for training and OSHA required recordkeeping.

EMPLOYEE EXOSURE DETERMINATION

The following list of job classifications are considered high risk (likely to have exposure to blood and OPIM) as determined by their job duties.

<u>JOB TITLE</u>	<u>DEPARTMENT</u>
RN	Employee Health Clinic
LPN	Employee Health Clinic
Lifeguards	Parks, SSS, MSTU
Custodians	Facilities
Parks Service Workers	Parks
Parks Recreation Leaders	Parks
Treatment Plant Operators	Utilities
Water Collection Employees	Utilities
Lift Station Employees	Utilities, Solid Waste
Designated First Aid/CPR Team	All Departments
Solid Waste Employees	Solid Waste

The following list of job classifications are considered to have moderate risk (exposure may occur in course of performing job duties, but not likely).

<u>JOB TITLE</u>	<u>DEPARTMENT</u>
Fleet Mechanics	Fleet
Animal Code Officer	Animal Services
Health Department Building/Main	Facilities

Listed below are job titles and tasks that may be associated with an occupational exposure to blood or OPIM:

<u>JOB TITLE</u>	<u>DEPARTMENT / LOCATION</u>	<u>TASK PROCEDURE</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Part time, temporary, contract and per diem employees are covered under this standard. Contract agencies need to provide proof of immunization and training. All employees are to be trained on Work Practice and Engineering Controls as well as post exposure protocol prior to performing job duties.

METHODS OF EXPOSURE CONTROL

Engineering controls should be the primary source of exposure control. Engineering controls should provide of means of isolation or minimize exposure to blood or OPIM.

Engineering Controls should include but not limited to:

Sharps containers available for needles and sharps. These containers should only be filled to no more than $\frac{3}{4}$ the total capacity before sealed and disposed of in hazardous waste. Placement of sharps containers need to be where it is stable and out of reach of children.

Sharps containers should be rigid, puncture resistant, leak proof, portable and labeled. There should be available in all areas where it is reasonable to anticipate sharps to be present.

Sharps containers should be placed in areas where there is limited exposure to the public or other employees that are not considered high/moderate risk.

Thick, puncture resistant boxes with inner red bags may be used for objects that are contaminated with blood or OPIM.

Hand washing facilities with soap and tepid running water available. Alcohol based hand cleansers should be made available to employees whose job duties require those duties be performed in an area where hand washing facilities are not available.

Equipment should be available to pick up broken or used sharp containers (e.g. clamps, forceps, broom or dustpans).

Thick Latex or Vicryl gloves should be available to clean up spills of blood or OPIM.

Employees with Latex allergies should be given an approved non-latex gloves (sterile or examination) when performing duties where there is likelihood of exposure to blood or OPIM to the hands.

Face shields or goggles and face mask should be worn when there is likely to be a splash or exposure to the face/eyes.

Gowns, head and foot covering should be worn when it is “reasonably” likely to be splashes of blood or OPIM on skin and clothing.

Approved disinfectants and cleaners should be available for equipment and/or surfaces that have been contaminated with blood or OPIM.

Clinic and First Aid/ CPR designated employees should be provided with first aid and CPR supplies (face shields) that would minimize contact with blood and OPIM.

Engineering controls should be evaluated during all post exposure investigations. New controls should be instituted when the investigation conclusion supports that use of these controls would eliminate or minimize exposure risk.

Work Practice Controls

Work Practice Controls are safe work practices. These practices should be part of the standing operating best practice guidelines of each department. Listed below are general **Work Practice Controls that are universal to all departments and job descriptions:**

Do not eat, drink, apply lip gloss, smoke or handle contact lenses in work areas or areas that may have reasonable likelihood of contamination with blood or OPIM.

Never touch your face, eyes, nose or mouth without first washing your hands.

Wear gloves when:

The skin of employee is cut, abraded or chapped. Cover all open areas of skin prior to gloving or beginning work duties.

There is reasonable anticipation of hand contact with blood, OPIM or mucous membranes.

When dealing with specimen collection, testing, storage, transportation or storage.

When working with/or cleaning contaminated surfaces or equipment.

When feasible, place absorbent pad on all areas that may be contaminated (e.g. specimen storage areas).

Utility gloves should be worn during housekeeping, cleaning or decontamination best practice guidelines.

Eye, face masks and goggles should be worn when there is reasonable anticipation of splashing or misting of blood or OPIM.

Gowns and protective coverings should be used when there is likely exposure by splashes of blood or OPIM to head, torso, arms and legs.

Personal Protective Equipment (PPE) is to be removed as soon as procedure is completed and safety permits. Contaminated reusable equipment should be cleaned with appropriate cleaners and as per manufactures' instructions. Contaminated disposable articles should be placed in leak proof, color coded containers "red biohazard bags" and placed in hazardous waste.

PPE should be evaluated by staff and department managers. _____ should review evaluations and have authorization to select appropriate PPE. More than one option should be available for evaluation. All PPE should meet minimum national standards.

Contaminated laundry should be removed and double bagged as soon as safety permits. Each Department is responsible for laundering contaminated articles of clothing. The Employee Health Clinic may assist in finding appropriate cleaning services that are equipped to handle contaminated laundry.

Wash hands after removal of any/all PPE.

Never pick up sharps w/ bare hands. Use broom and dustpan or clamping type of object to pick up sharps. Sharps are to be disposed of in puncture resistant, leak proof container with biohazard seal.

Use approved equipment for cleaning drains. Never clean or touch drains w/ hands unless drain has been decontaminated or removed from source of contamination.

Lift all pumps out of contaminated drainage prior to repair or maintenance best practice guidelines.

Never use hands or feet to compress trash.

Never recap, bend or shear needles. One handed recapping by “scooping” method is permitted if disposable is not an option. Safety needles are to be used for all injection and phlebotomy best practice guidelines.

All needle and safety syringes are to be disposed in puncture resistant container. Commercial sharp containers which are rigid, color coded, puncture resistant, leak-proof and sealable meet all the requirements and are preferred.

Sharp containers should be sealed when $\frac{3}{4}$ full. Never place hands inside sharps containers.

Contaminated sharp containers and trash should be disposed of according to Florida Bio- Hazard Waste Disposal Law (Chapter 64E-16) by firm licensed to transport and dispose of bio-hazardous waste. All contaminated trash should be picked up at least every thirty days.

Safety needles should be evaluated on annual basis w/ proper documentation.

All sharp injuries should be recorded on OSHA’s “Sharps Injury Log”. The Employee Health Clinic should be responsible for maintaining this log.

Visually inspect all equipment and environment for contaminants prior to starting work duties.

Do not store food or drink in same area or refrigeration used for specimens or blood.

Put on PPE prior to administering first aid.

Always use face shield or mouth shield prior to performing CPR.

Additional Work Practice Controls specific for each department as below:

Annual review of existing Engineering and Work Practice Controls should be done by _____ in each department. Best practice guidelines should be evaluated and/or changed on an annual basis and after each post-exposure incident investigation.

HOUSEKEEPING

Develop routine housekeeping schedule. All surfaces should be cleansed and maintained on a weekly schedule. All surface storage or work areas should be covered in absorbent material when feasible. The absorbent material should be changed on a routine schedule and after contamination. Contaminated material should be placed in contaminated trash receptacle that is leak proof and puncture resistant.

Contaminated trash/receptacle should be kept in labeled area to decrease possible health threat to others.

The housekeeping scheduled should be done by _____ of the _____ department.

Inspect all work areas or contamination, worn or torn surfaces.

Always clean or disinfect reusable equipment per manufacture's instructions.

Equipment sent out for repairs should be disinfected or bagged to prevent further contamination during transit.

Clean all drains and imbedded materials with broom, rake or other approved instruments that prevent direct contact with your hands.

Use thick Latex Utilities gloves when doing routine cleaning and decontaminations. Gloves may be disinfected and reused. Inspect gloves before each use for signs of wear or cracks. Discard all torn or worn gloves.

Wear appropriate PPE when there is possibility of splashing or aerosolization of contaminant.

Contain and post areas of contamination. Cover spill w/ absorbent material to contain spread. Clean area w/cleanser that kills antitubucular/antimicrobial/antiviral germs w/ specifics for HIV and Hepatitis virus. All cleaners and/or bleach solution should have MSDS forms on file. Dispose of trash in contaminated trash receptacle. Clean all cleaning tools (e.g. bucket, mop etc) with bleach and water (1:10) solution. Remove PPE and wash hands when completed.

HEPATITIS B VACCINE

The Hepatitis B vaccine series should be offered to all employees whose job description lists job duties that are likely to involve exposure to blood and OPIM. The employee has the right to decline these vaccines, but should be given the vaccine at no charge if he/she should decide to have the vaccination at a later date.

These vaccines are offered at no-charge to the employees. The Hepatitis B vaccine should be offered within 10 days of initial assignment of high risk job duties.

The vaccination is encouraged unless: 1) documentation exists that the employee has previously received the series, and 2) antibody testing reveals the employee is immune, or 3) medical evaluation shows that vaccination is contraindicated.

The Employee Health Clinic should evaluate each candidate regarding the need for the vaccine. Employee's that have already have received the series may be recommended to have a Hepatitis B Antibody Titer drawn to determine immunity.

The vaccine series consists of administration of three vaccine doses. The first dose should be done within 10 days of initial assignment of high risk duties, the second one month later and the last vaccine 6 months from the first dose. A Hepatitis B antibody level should be drawn 6-8 weeks after the completion of the series.

Determination of dosing should be done according the current Center for Disease Control's (CDC) recommendations.

Training on Blood borne Pathogens, Hepatitis B vaccine efficacy, risks and benefits should be done within 10 days of initial assignment of high risk duties. Training should be provided before administration of the Hepatitis B vaccine series.

Employees that decline the vaccinations should sign a declination form provided by the Employee Health Clinic.

POST EXPOSURE EVALUATION AND FOLLOW-UP

An exposure incident is defined as exposure of blood or OPIM:

1. To mucous membranes (e.g. eyes, nose and mouth)
2. To non-intact skin
3. Parental contact (piercing of the skin, needle stick)

The employee should wash exposed area with soap and running water, flush out eyes or mouth, then report incident to immediate supervisor.

The supervisor should send employee for treatment and fill out the 1001 form to be forwarded to Risk Management. Documentation of route and circumstances of exposure, source individual and medical treatment provided should be included on the 1001 form.

The employee should seek medical care as soon as they have cleared the scene. The employee is to report the Employee Health Clinic. If the clinic is closed, they are to report to the Contracted Medical Provider or Emergency Department. Follow up should be done at the clinic on the next business day. A copy of job description and written documentation on route and circumstances of exposure should be sent with employee.

The Medical Provider should determine the need for medications, immunizations and source testing. Baseline blood work should be drawn. Follow up testing should be done at the Employee Health Clinic following the current CDC post exposure protocols. The employee should be asked to read protocols and sign permission slip for HIV testing. A schedule should be given each employee for follow-up testing.

Post exposure medical records should be kept in the medical files at the Employee Health Clinic for the term of employment plus 30 years.

HAZARD NOTIFICATION

The Public and employees should receive sufficient warning of the presence of biohazardous waste through labels, signs, tags.

The biohazard symbol warns of the actual or potential presence of a biological hazard. This international symbol should be displayed on:

- Equipment, containers of regulated waste
- Refrigerators and freezers used to store blood or OPIM
- Containers used to store, transport or ship blood or OPIM
- Rooms that are used to store biological hazards or contaminated w/biological agents

Sharp containers should be leak proof, puncture resistant, color coded and sealable. These containers should be kept in a place out of reach of children.

Contaminated laundry and trash may be collected in a bag that is leak proof and labeled w/ biohazard sign and/or red in color. Sharps should not be disposed of in garbage bag. Sharps need to be placed in sharp container or labeled, puncture resistant, and leak proof container.

Tags should contain the word Biohazard as the signal word followed by descriptive word (e.g. Biohazard Material). The signal word should be readable at the minimum of five feet. The tags should be affixed as close as safely possible to the hazard with a string, wire or adhesive to prevent its loss or unintentional removal.

All specimens are to be transported in proper containers. They are to be treated as contagious, therefore gloves are required when opening carrier box of specimen. A Biohazard label or red color coding is required when specimens leave the facility.

TRAINING

All employees who have a likely occupational exposure to blood or OPIM should receive training prior to starting job duties that are high risk. The department safety/training officer should oversee training on this policy, job duties and work practice controls that are specific to their work site.

Employee training should include:

- The location and proper use of personal protection equipment (PPE)
- Safe work practices
- Universal Precautions- treating all blood and OPIM as contagious
- Proper housekeeping
- Follow up best practice guidelines for needle stick or body fluid exposure

All new employees should be informed on the location of the Exposure Control Plan on the portal. They should be offered an opportunity to have a copy of the Exposure Control Plan if the portal is not available for their use.

Review of blood borne pathogens and vaccine information should be made available at the Employee Health Clinic when new high and moderate risk employees report to the clinic for their Hepatitis B

vaccine. Employees that have already received the Hepatitis B vaccine or our declining vaccination should be provided the information by their safety/training officer.

The Blood borne Pathogen training classes are posted on the Marion County Human Resources Training Calendar. All identified at risk employees are to attend one of these classes within six months of employment and annually thereafter. This training reviews the Blood borne Pathogens and components of the Exposure Control Plan

RECORDKEEPING

Training records are completed for each high and medium risk employee upon the completion of training. These records should be kept for at least three years by the Human Resources' Training Manager. Initial and post exposure training should be kept in the department personnel files.

The Human Resource and Department training record should include:

- The dates of the training sessions
- The contents or a summary of the training session
- The name and qualifications of the person conducting the training
- The names and job titles of all persons attending the training session

Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. This request can be made as a public record request.

Medical records of immunizations and post exposure care should be maintained at the Employee Health Clinic for the term of employment plus thirty years. Medical records are exempt from Florida Sunshine public records disclosures, therefore release of medical records should only be done with written authorization of employee and/or by subpoena. Post exposure treatment is covered under workers compensation which may necessitate information forwarded to the Risk Management Department or Workers Compensation Carrier.

Sharps Injury Logs should be completed by the Employee Health Clinic. All injuries involving sharps should be documented by the department supervisor on 1001 form. The original 1001 form should be forwarded to Risk Management. A copy should be forwarded to the Employee Health Clinic.

The Sharps Injury log is reviewed at least annually as part of the annual evaluation of the program. These records are maintained at the Employee Health Clinic and/or the Risk Management Department for at least five years following the end of the calendar year that they cover.

Risk Management should generate and maintain OSHA Form 300A, 300 and 301. Records should be maintained for at least a period of 5 years.

ACCIDENT INVESTIGATION

Post exposure investigation should be done by Risk Management to determine use of engineering, work practice controls and medical evaluation. Recommendations on benefits of instituting new engineering or work practice controls to prevent re-occurrence should be included in final determination.

Failure to use engineering controls, PPE or adhere to existing work practice controls should necessitate re-training of involved employee on area of deficit. This training should be done by _____ . Documentation of training should be kept in employee personnel file.

Hepatitis B Vaccine Declination (Mandatory)

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Signed: _____ *(Employee Name)*

Date: _____

Marion County

HAZARD COMMUNICATION PROGRAM

I. General

The purpose of this instruction is to ensure that **Marion County** is in compliance with the Occupational Safety and Health Administration's Hazard Communication Standard (HCS) 29 CFR 1910.1200.

(Coordinator's name or title) is designated as the Hazard Communication Program Coordinator and as such acts as the representative of the President of **Marion County**, who has overall responsibility.

In general, each employee in the facility should be apprised of the substance of the HCS, the hazardous properties of chemicals they work with, and measures to take to protect themselves from these chemicals.

II. LIST OF HAZARDOUS CHEMICALS

The Hazard Communication Coordinator should maintain a list of all hazardous chemicals used in the facility, and update the list as necessary. The hazardous chemical list should be updated upon receipt of hazardous chemicals at the facility. The list of hazardous chemicals is maintained in *(enter place(s) list is kept)*.

III. Material Safety Data Sheets (MSDS's)

The Hazard Communication Coordinator should maintain an MSDS on every substance listed on the hazardous chemical list in. The MSDS should consist of a fully completed OSHA Form 174 or equivalent. The Hazard Communication Coordinator should ensure that all MSDS's are kept in the *(enter location where MSDS's are to be kept)*. All MSDS's should be readily available to all employees.

The HazCom Coordinator is responsible for acquiring and updating MSDS's. The Coordinator should review each MSDS for accuracy and completeness. All new procurements for the facility should be cleared by the Hazard Communication Coordinator. Whenever possible, the least hazardous substance should be procured. MSDS's that meet the requirements of the HCS should be fully completed and received at the facility either prior to or at the time of receipt of the first shipment of any potentially hazardous chemical purchased from a vendor. It may be necessary to discontinue procurements from vendors failing to provide approved MSDS's in a timely manner.

IV. Labels and Other Forms of Warning

(Enter name and/or title) is designated to ensure that all hazardous chemicals in the facility are properly labeled. Labels should list at least the chemical identity, appropriate hazard warnings, and the name and address of the manufacturer, importer, or other responsible party. **(enter name and/or title)** should refer to the corresponding MSDS to verify label information. Immediate use containers, small containers in which materials are poured for use on that shift by the employee drawing the material, do not require labeling. To meet the labeling requirements of HCS for other in-house containers, refer to the label supplied by the manufacturer. All labels for in-house containers should be approved by **(enter name and/or title)** prior to their use.

(Enter name and/or title) should check on a monthly basis to ensure that all containers in the facility are labeled and that the labels are up to date.

V. Training

Each employee who works with or is potentially exposed to hazardous chemicals should receive initial training on the HCS and the safe use of those chemicals. Additional training should be provided for employees whenever a new hazard is introduced into their work areas. Hazardous chemical training should be conducted by **(enter name and/or title)**.

The training should emphasize these elements:

- > A summary of the standard and this written program;
- > Hazardous chemical properties including visual appearance and odor and methods that can be used to detect the presence or release of hazardous chemicals;
 - > Physical and health hazards associated with potential exposure to workplace chemicals;
 - > Best practice guidelines to protect against hazards, e.g., personal protective equipment, work practices, and emergency best practice guidelines;
- > Hazardous chemical spill and leak best practice guidelines; and,

- > Where MSDS's are located, how to understand their content, and how employees may obtain and use appropriate hazard information.

The Hazard Communication Coordinator should monitor and maintain records of employee training and advise the facility manager on training needs.

VI. Contractors and Other "Outside" Employers

The Hazard Communication Coordinator, upon notification from management, should advise outside contractors of any chemical hazards which may be encountered in the normal course of their work on the premises. Likewise, contractors and other outside employers should be required provide information to the Hazard Communication Coordinator regarding any hazardous materials they should introduce into our facilities. This information may be conveyed by providing MSDS's to the appropriate personnel.

VII. Non-Routine Tasks

Supervisors contemplating a non-routine task, should consult with the Hazard Communication Coordinator and ensure that employees are informed of chemical hazards associated with the performance of these tasks and appropriate protective measures. This should be accomplished by a meeting of supervisors and the Hazard Communication Coordinator with affected employees before such work is begun.

VIII. Additional Information

Further information on this written program, the Hazard Communication Standard, and applicable MSDS's is available by contacting the Corporate Safety Director.

Sample Written Program

for

Hearing Conservation

**Hearing Conservation Program
for
Marion County**

I. OBJECTIVE

The objective of the Marion County Hearing Conservation Program is to minimize occupational hearing loss by providing hearing protection, training, and annual hearing tests to all persons working in areas or with equipment that have noise levels equal to or exceeding an eight-hour time-weighted average (TWA) sound limit of 85 dBA (decibels measured on the A scale of a sound level meter). A copy of this program should be maintained by all affected departments. A copy of OSHA's Hearing Conservation Standard, 29 CFR 1910.95, can be obtained from Responsible Person. A copy of the standard should also be posted in areas with affected employees.

II. ASSIGNMENT OF RESPONSIBILITY

A. Management

1. Use engineering and administrative controls to limit employee exposure.
2. Provide adequate hearing protection for employees.
3. Post signs and warnings in all high noise areas.
4. Conduct noise surveys annually or when new equipment is needed.
5. Conduct annual hearing test for all employees.
6. Conduct hearing conservation training for all new employees.
7. Conduct annual hearing conservation training for all employees.

B. Employees

1. Use county-issue approved hearing protection in designated high noise areas.
2. Request new hearing protection when needed.
3. Exercise proper care of issued hearing protection.

III. BEST PRACTICE GUIDELINES

A. Noise Monitoring

1. Monitoring for noise exposure levels should be conducted by Responsible Person. It is the responsibility of the individual departments to notify Responsible Person when there is a possible need for monitoring. Monitoring should be performed with the use of sound level meters and personal dosimeters at the discretion of Responsible Person.

2. Monitoring should also be conducted whenever there is a change in equipment, process or controls that affect the noise levels. This includes the addition or removal of machinery, alteration in building structure, or substitution of new equipment in place of that previously used. The responsible supervisor should inform **Responsible Person** when these types of changes are instituted.

B. Employee Training

1. Affected employees should be required to attend training concerning the proper usage and wearing of hearing protection. The training should be conducted by **Responsible Person**, or a designated representative, within a month of hire and annually thereafter.

2. Training should consist of the following components:

- a. how noise affects hearing and hearing loss;
- b. review of the OSHA hearing protection standard;
- c. explanation of audiometric testing;
- d. rules and best practice guidelines;
- e. locations within county property where hearing protection is required; and
- f. how to use and care for hearing protectors.

3. Training records should be maintained by **Responsible Person** (see Attachment A).

C. Hearing Protection

Management, supervisors, and employees should properly wear the prescribed hearing protection while working or traveling through any area that is designated as a high noise area.

1. Hearing protection should be provided at no cost to employees who perform tasks designated as having a high noise exposure and replaced as necessary. It is the supervisor's responsibility to require employees to wear hearing protection when noise levels reach or exceed 85 dBA. Those employees should have the opportunity to choose from at least two different types of hearing protection.

2. Personal stereo headsets, or "Walkmen," are not approved for hearing protection and are not permitted in any operating area of county property.

3. Signage is required in areas that necessitate hearing protection. It is the responsibility of **Responsible Person** to provide signage to the appropriate areas.

4. Prefomed earplugs and earmuffs should be washed periodically and stored in a clean area. Foam inserts should be discarded after each use. Hands should be washed before handling prefomed earplugs and foam inserts to prevent contaminants from being placed in the ear.

5. **Responsible person** should keep a log of the areas or job tasks designated as requiring hearing protection, as well as the personnel affected by this Hearing Conservation Program (see Attachment B).

D. Audiograms/Hearing Tests

1. Employees subject to the Hearing Conservation Program who have time-weighted average (TWA) noise exposures of 85 dBA or greater for an eight (8) hour work shift should be required to have both a baseline and annual audiogram. The audiograms should be provided by the **Marion County** and conducted by **Responsible County** with no cost to the employee.

2. The baseline audiogram should be given to an employee within one (1) month of employment with **Marion County** and before any exposure to high noise levels. Annual audiograms should be performed within one year from the date of the previous audiogram. It is the responsibility of the individual and **Responsible person** to schedule the annual audiogram.

3. If an annual audiogram shows that an employee has suffered a standard threshold shift, the employee should be retested within thirty (30) days of the annual audiogram. If the retest confirms the occurrence of a standard threshold shift, the employee should be notified in writing within twenty-one (21) days of the confirmation. Employees who do experience a standard threshold shift should be refitted with hearing protection and provided more training on the effects of noise.

Lockout/Tagout: The Control of Hazardous Energy Safety Program for Marion County

I. OBJECTIVES

To establish a means of positive control to prevent the accident starting or activating of machinery or systems while they are being repaired, cleaned and/or serviced.

- A. To establish a safe and positive means of shutting down machinery, equipment and systems.
- B. To prohibit unauthorized personnel or remote control systems from starting machinery or equipment while it is being serviced.
- C. To provide a secondary control system (tagout) when it is impossible to positively lockout the machinery or equipment.
- D. To establish responsibility for implementing and controlling lockout/tagout best practice guidelines.
- E. To ensure that only approved locks, standardized tags and fastening devices provided by the county should be utilized in the lockout/tagout best practice guidelines.

II. AREAS OF RESPONSIBILITY

- A. _____ should be responsible for implementing the lockout/tagout program.
- B. _____ are responsible to enforce the program and insure compliance with the best practice guidelines in their department.
- C. _____ is responsible for monitoring the compliance of this procedure and should conduct the annual inspection and certification of the authorized employees.

- D. Authorized employees (those contained in attachment #A-1) are responsible to follow established lockout/tagout best practice guidelines.
- E. Affected employees (all other employees in the facility) are responsible for insuring they do not attempt to restart or re-energize machines or equipment which are locked out or tagged out.

BEST PRACTICE GUIDELINES

PREPARATION FOR LOCKOUT OR TAGOUT

Employees who are required to utilize the lockout/tagout procedure (see attachment #A-1) should be knowledgeable of the different energy sources and the proper sequence of shutting off or disconnecting energy means.

The four types of energy sources are:

- (1) Electrical (most common form)
- (2) Hydraulic or pneumatic
- (3) Fluids and gases
- (4) Mechanical

More than one energy source can be utilized on some equipment and the PROPER procedure should be followed in order to identify energy sources and lockout/tagout accordingly. See Attachment D for specific procedure format.

ELECTRICAL

- A. Shut off power at machine and disconnect.
- B. Disconnecting means should be locked or tagged.
- C. Press start button to see that correct systems are locked out.
- D. All controls should be returned to their safest position.
- E. Points to remember:
 - 1. If a machine or piece of equipment contains capacitors, they should be drained of stored energy.

2. Possible disconnecting means include the power cord, power panels (look for primary and secondary voltage), breakers, the operator's station, motor circuit, relays, limit switches, electrical interlocks.

NOTE:

1. Some equipment may have a motor isolating shut-off and a control isolating shutoff.
2. If the electrical energy is disconnected by simply unplugging the power cord, the cord should be kept under the control of the authorized employee or the plug end of the cord should be locked out or tagged out.

HYDRAULIC/PNEUMATIC

- A. Shut off all energy sources (pumps and compressors). If the pumps and compressors supply energy to more than one piece of equipment, lockout or tagout the valve supplying energy to this piece of equipment.
- B. Stored pressure from hydraulic/pneumatic lines should be drained/bled when release of stored energy could cause injury to employees.
- C. Make sure controls are returned to their safest position (off, stop, standby, inch, jog, etc.).

FLUIDS AND GASES

- A. Identify the type of fluid or gas and the proper
- B. Close valves to prevent flow, lockout/tagout.
- C. Determine the isolating device, close, and lockout or tagout.
- D. Drain and bleed lines to zero energy state.

NOTE: *Some systems may have electrically controlled valves; if so, they should be shut off, locked or tagged out.*

- E. Check for zero energy state at the equipment.

MECHANICAL ENERGY (Gravity activation, or stored in springs, etc)

- A. Block out or use die ram safety chain.
- B. Lockout or tagout safety device.
- C. Shut off, lockout or tagout electrical system.
- D. Check for zero energy state.
- E. Return controls to safest position.

RELEASE FROM LOCKOUT/TAGOUT

- A. Inspection - - Make certain the work is completed and inventory tools and equipment used.
- B. Clean-up - - Remove all towels, rags, work-aids, etc.
- C. Replace guards - - Replace all guards possible. Sometimes a particular guard may have to be left off until the start sequence is over due to possible adjustments, however, all other guards should be put back into place.
- D. Check controls - - All controls should be in their safest position.
- E. The work area should be checked to ensure that all employees have been safely positioned or removed and notified that the lockout/tagout devices are being removed.
- F. Remove locks/tags - - Remove only your lock or tag.

PROCEDURE INVOLVING MORE THAN ONE PERSON

When servicing and/or maintenance is performed by more than one person, each authorized employee should place his own lock or tag on the energy isolating source. This should be done by utilizing a multiple lock scissors clamp if the equipment is capable of being locked out. If the equipment cannot be locked out, then each authorized employee should place his tag on the equipment.

PROCEDURE FOR THE REMOVAL OF AN AUTHORIZED EMPLOYEE'S LOCKOUT/TAGOUT BY THE COUNTY

Each location should develop written best practice guidelines under the above heading that complies with 1910.147(e)(3) that can be utilized at that location. Your best practice guidelines should include the following:

- 1. Verification by employer that the authorized employee who applied the device is not in the facility.*
- 2. Make reasonable efforts to advise the employee that his device has been removed. (This can be done when he returns to the facility).*
- 3. Ensure that the authorized employee has this knowledge before he resumes work at the facility.*

BEST PRACTICE GUIDELINES FOR SHIFT OR PERSONNEL CHANGES

Each facility should develop their own written best practice guidelines based on their need and capabilities. However, your procedure should specify how you should ensure the continuity of lockout or tagout protection during that time. See 1910.147(e)(4).

BEST PRACTICE GUIDELINES FOR OUTSIDE PERSONNEL/CONTRACTORS

Outside personnel/contractors should be advised that the county has and enforces the use of lockout/tagout best practice guidelines. They should be informed of the use of locks and tags and notified about the prohibition relating to attempts to restart or re-energize machines or equipment that are locked out or tagged out.

The county should obtain information from the outside personnel/contractor about their lockout/tagout best practice guidelines and advise affected employees of this information.

The outside personnel/contractor should be required to sign a certification form (see attachment C). If outside personnel/contractor has previously signed a certification that is on file, there is no need to have them sign a new certification.

TRAINING AND COMMUNICATION:

Each authorized employee who should be utilizing the lockout/tagout procedure should be trained in the recognition of applicable hazardous energy sources, type and magnitude of energy available in the work place, and the methods and means necessary for energy isolation and control.

Each affected employee (all employees other than authorized employees utilizing the lockout/tagout procedure) should be instructed in the purpose and use of the lockout/tagout procedure and the prohibition relating to attempts to restart or re-energize machines or equipment which are locked out or tagged out.

Training should be certified using attachment #A-2 (Authorized personnel) or #A-3 (Affected Personnel). The certification should be retained in the employee's personnel file.

BEST PRACTICE GUIDELINES FOR PERIODIC INSPECTION

A periodic inspection (at least annually) should be conducted of each authorized employee under the lockout/tagout procedure. This inspection should be performed by the **(Responsible person)** provided they are not the ones utilizing the energy control procedure being inspected.

The inspection should include a review between the inspector and each authorized employee, of that employee's responsibilities under the energy control (lockout/tagout) procedure. The inspection should also consist of a physical inspection of the authorized employee while performing work under the best practice guidelines.

The **(Responsible person)** should certify in writing that the inspection has been performed. The written certification (see attachment #B) should be retained in the individual's personnel file.

ATTACHMENT A-1

LIST OF AUTHORIZED PERSONNEL

FOR

LOCKOUT/TAGOUT BEST PRACTICE GUIDELINES

NAMES

JOB TITLE

ATTACHMENT A-2

CERTIFICATION OF TRAINING

(AUTHORIZED PERSONNEL)

I CERTIFY THAT I RECEIVED TRAINING AS AN AUTHORIZED
EMPLOYEE UNDER _____ LOCKOUT/TAGOUT
PROGRAM. I FURTHER CERTIFY THAT I UNDERSTAND THE BEST
PRACTICE GUIDELINES AND SHOULD ABIDE BY THOSE BEST
PRACTICE GUIDELINES.

AUTHORIZED EMPLOYEE SIGNATURE

DATE

ATTACHMENT A-3

CERTIFICATION OF TRAINING

(AFFECTED PERSONNEL)

I CERTIFY THAT I RECEIVED TRAINING AS AN AFFECTED EMPLOYEE UNDER
_____ LOCKOUT/TAGOUT PROGRAM. I FURTHER CERTIFY
AND UNDERSTAND THAT I AM PROHIBITED FROM ATTEMPTING TO RESTART
OR RE-ENERGIZE MACHINES OR EQUIPMENT WHICH ARE LOCKED OUT OR
TAGGED.

AFFECTED EMPLOYEE SIGNATURE

DATE

ATTACHMENT B

LOCKOUT/TAGOUT INSPECTION CERTIFICATION

I CERTIFY THAT _____ WAS INSPECTED ON THIS DATE
UTILIZING LOCKOUT/TAGOUT BEST PRACTICE GUIDELINES. THE INSPECTION
WAS PERFORMED WHILE WORKING ON

.

AUTHORIZED EMPLOYEE SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

ATTACHMENT C

OUTSIDE PERSONNEL/CONTRACTOR CERTIFICATION

I CERTIFY THAT _____ AND
(OUTSIDE PERSONNEL/CONTRACTOR) HAVE INFORMED EACH OTHER OF OUR
RESPECTIVE LOCKOUT OR TAGOUT BEST PRACTICE GUIDELINES.

NAME (PRINTED)

DATE

SIGNATURE

DATE

OUTSIDE PERSONNEL/CONTRACTOR (PRINTED)

DATE

SIGNATURE

DATE

ATTACHMENT D
EQUIPMENT SPECIFIC PROCEDURE
FOR

(Date)

Machine Identification

General Description:

Manufacturer:

Model Number:

Serial Number:*

** If more than one piece of same equipment, list all serial numbers.*

Location of equipment:

Operator Controls

The type of controls available to the operator need to be determined. This should help identify energy sources and lockout capacity for the equipment.

List types of operator controls:

Energy Sources

The energy sources present on this equipment are: (electrical, steam, hydraulic, pneumatic, natural gas, stored energy, etc.)

ENERGY SOURCE	LOCATION	Lockable		Type lock or block needed
		Yes	No	

Shutdown Best practice guidelines

List the steps in order necessary to shut down and de-energize the equipment. Be specific. For stored energy, be specific about how the energy should be dissipated or restrained.

Procedure:

Lock Type & Location:

De-energized State To Be Verified? How?

NOTIFY ALL AFFECTED EMPLOYEES WHEN THIS PROCEDURE IS IN APPLICATION

Start Up Best practice guidelines

List the steps in order necessary to reactivate (energize) the equipment. Be specific.

Procedure:

Energy Source Activated:

NOTIFY ALL AFFECTED EMPLOYEES WHEN THIS PROCEDURE IS IN APPLICATION

Best practice guidelines For Operations and Service/Maintenance

List those operations where the best practice guidelines above do not apply. [See 29CFR 1910.147 (a)(2)] Alternate measures which provide effective protection should be developed for these operations. Job Safety Analysis is one method of determining appropriate measures.

Operation Name:

Approved by (& date):

Approved by (& date):

**Personal Protective Equipment (PPE)
For
Marion County**

Written Hazard Assessment for Selecting Personal Protective Equipment

- Identifying and evaluating equipment and processes
- Reviewing injury/accident/incident records
- Reviewing previously selected PPE

Date of Evaluation: _____

Workplace
Evaluated By: _____

Evaluator Title: _____

<u>HAZARD TYPE</u> [impact, penetration, chemical--(corrosive, reactive, toxic, irritant, flammable, etc), heat, harmful (or nuisance) dust, light / radiation, electrical, biohazard, noise, other]	<u>LOCATION/ SOURCES/ TASKS</u>	<u>ANALYSIS OF RISK</u> (Low/ Medium / High)		<u>PPE (REQUIRED)</u>	<u>PPE (OPTIONAL)</u>
		Level of Risk	Seriousness of Potential Injury		

Employee Acknowledgement of Personal Protective Equipment Training

I, _____, have been trained in the county's personal protective equipment program. The protective equipment required in my work area has been explained and I am aware of the county's policy and requirement.

Employee's Signature

Date

Supervisor's Signature

Date

Fall Protection Safety Program for Precast/Prestressed Concrete Structures For Marion County

This Precast/Prestressed Concrete Structures Fall Protection Plan is specific for the following project:

Location of Job:
Erecting County:
Date Plan Prepared or Modified:
Plan Prepared By:
Plan Approved By:
Plan Supervised By:

The following Fall Protection Plan is prepared for the prevention of injuries associated with falls. A Fall Protection Plan should be developed and evaluated on a site by site basis.

I. **STATEMENT OF COUNTY POLICY**

Marion County is dedicated to the protection of its employees from on-the-job injuries. All employees of **Marion County** have the responsibility to work safely on the job. The purpose of this plan is:

- (a) To supplement our standard safety policy by providing safety standards specifically designed to cover fall protection on this job and; (b) To ensure that each employee is trained and made aware of the safety provisions which are to be implemented by this plan prior to the start of erection.

This Fall Protection Plan addresses the use of other than conventional fall protection at a number of areas on the project, as well as, identifying specific activities that require non-conventional means of fall protection. These areas include:

- a. Connecting activity (point of erection).
- b. Leading edge work.
- c. Unprotected sides or edge.
- d. Grouting.

This plan is designed to enable employers and employees to recognize the fall hazards on this job and to establish the best practice guidelines that are to be followed in order to prevent falls to lower levels or through holes and openings in

walking/working surfaces. Each employee should be trained in these best practice guidelines and strictly adhere to them except when doing so would expose the employee to a greater hazard. If, in the employee's opinion, this is the case, the employee is to notify the foreman of the concern and the concern addressed before proceeding.

Safety policy and procedure on any one project cannot be administered, implemented, monitored and enforced by any one individual. The total objective of a safe, accident free work environment can only be accomplished by a dedicated, concerted effort by every individual involved with the project from management down to the last employee. Each employee should understand their value to the county; the costs of accidents, both monetary, physical, and emotional; the objective of the safety policy and best practice guidelines; the safety rules that apply to the safety policy and best practice guidelines; and what their individual role is in administering, implementing, monitoring, and compliance of their safety policy and best practice guidelines. This allows for a more personal approach to compliance through planning, training, understanding and cooperative effort, rather than by strict enforcement. If for any reason an unsafe act persists, strict enforcement should be implemented.

It is the responsibility of (Name of Competent Person) to implement this Fall Protection Plan. (Name of Competent Person) is responsible for continual observational safety checks of their work operations and to enforce the safety policy and best practice guidelines. The foreman also is responsible to correct any unsafe acts or conditions immediately. It is the responsibility of the employee to understand and adhere to the best practice guidelines of this plan and to follow the instructions of the foreman. It is also the responsibility of the employee to bring to management's attention any unsafe or hazardous conditions or acts that may cause injury to either themselves or any other employees. Any changes to this Fall Protection Plan should be approved by (name of Qualified Person).

II. **FALL PROTECTION SYSTEMS TO BE USED ON THIS PROJECT**

Where conventional fall protection is infeasible or creates a greater hazard at the leading edge and during initial connecting activity, we plan to do this work using a safety monitoring system and expose only a minimum number of employees for the time necessary to actually accomplish the job. The maximum number of workers to be monitored by one safety monitor is six (6). We are designating the following trained employees as designated erectors and they are permitted to enter the controlled access zones and work without the use of conventional fall protection.

Safety monitor:

Designated erector:

Designated erector:

Designated erector:

Designated erector:

Designated erector:

Designated erector:

The safety monitor should be identified by _____. Only individuals with the appropriate experience, skills, and training should be authorized as designated erectors. All employees that should be working as designated erectors under the safety monitoring system should have been trained and instructed in the following areas:

1. Recognition of the fall hazards in the work area (at the leading edge and when making initial connections-point of erection).
2. Avoidance of fall hazards using established work practices which have been made known to the employees.
3. Recognition of unsafe practices or working conditions that could lead to a fall, such as windy conditions.
4. The function, use, and operation of safety monitoring systems, guardrail systems, body belt/harness systems, control zones and other protection to be used.
5. The correct procedure for erecting, maintaining, disassembling and inspecting the system(s) to be used.
6. Knowledge of construction sequence or the erection plan.

A conference should take place prior to starting work involving all members of the erection crew, crane crew and supervisors of any other concerned contractors. This conference should be conducted by the (Whoever) supervisor in charge of the project. During the pre-work conference, erection best practice guidelines and sequences pertinent to this job should be thoroughly discussed and safety practices to be used throughout the project should be specified. Further, all personnel should be informed that the controlled access zones are off limits to all personnel other than those designated erectors specifically trained to work in that area.

Safety Monitoring System

A safety monitoring system means a fall protection system in which a competent person is responsible for recognizing and warning employees of fall hazards. The duties of the safety monitor are to:

1. Warn by voice when approaching the open edge in an unsafe manner.
2. Warn by voice if there is a dangerous situation developing which cannot be seen by another person involved with product placement, such as a member getting out of control.
3. Make the designated erectors aware they are in a dangerous area.
4. Be competent in recognizing fall hazards.
5. Warn employees when they appear to be unaware of a fall hazard or are acting in an unsafe manner.
6. Be on the same walking/working surface as the monitored employees and within visual sighting distance of the monitored employees.
7. Be close enough to communicate orally with the employees.
8. Not allow other responsibilities to encumber monitoring. If the safety monitor becomes too encumbered with other responsibilities, the monitor should (1) stop the erection process; and (2) turn over other responsibilities to a designated erector; or (3) turn over the safety monitoring function to another designated, competent person.

The safety monitoring system should not be used when the wind is strong enough to cause loads with large surface areas to swing out of radius, or result in loss of control of the load, or when weather conditions cause the walking-working surfaces to become icy or slippery.

Control Zone System

A controlled access zone means an area designated and clearly marked, in which leading edge work may take place without the use of guardrail, safety net or personal fall arrest systems to protect the employees in the area. Control zone systems should comply with the following provisions:

1. When used to control access to areas where leading edge and other operations are taking place the controlled access zone should be defined by a control line or by any other means that restricts access.

When control lines are used, they should be erected not less than 6 feet (1.8 m) nor more than 60 feet (18 m) or half the length of the member being erected, whichever is less, from the leading edge.

2. The control line should extend along the entire length of the unprotected or leading edge and should be approximately parallel to the unprotected or leading edge.

3. The control line should be connected on each side to a guardrail system or wall.
4. Control lines should consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions as follows:
5. Each line should be flagged or otherwise clearly marked at not more than 6-foot (1.8 m) intervals with high-visibility material.
6. Each line should be rigged and supported in such a way that its lowest point (including sag) is not less than 39 inches (1 m) from the walking/working surface and its highest point is not more than 45 inches (1.3 m) from the walking/working surface.
7. Each line should have a minimum breaking strength of 200 pounds (.88 kN).

Holes

All openings greater than 12 in. x 12 in. should have perimeter guarding or covering. All predetermined holes should have the plywood covers made in the precasters' yard and shipped with the member to the jobsite. Prior to cutting holes on the job, proper protection for the hole should be provided to protect the workers. Perimeter guarding or covers should not be removed without the approval of the erection foreman.

Precast concrete column erection through the existing deck requires that many holes be provided through this deck. These are to be covered and protected. Except for the opening being currently used to erect a column, all opening protection is to be left undisturbed. The opening being uncovered to erect a column should become part of the point of erection and should be addressed as part of this Fall Protection Plan. This uncovering is to be done at the erection foreman's direction and should only occur immediately prior to "feeding" the column through the opening. Once the end of the column is through the slab opening, there should no longer exist a fall hazard at this location.

III. IMPLEMENTATION OF FALL PROTECTION PLAN

The structure being erected is a multi-story total precast concrete building consisting of columns, beams, wall panels and hollow core slabs and double tee floor and roof members.

The following is a list of the products and erection situations on this job:

Columns

For columns 10 ft to 36 ft long, employees disconnecting crane hooks from columns should work from a ladder and wear a body belt/harness with lanyard and be tied off when both hands are needed to disconnect. For tying off, a

vertical lifeline should be connected to the lifting eye at the top of the column, prior to lifting, to be used with a manually operated or mobile rope grab. For columns too high for the use of a ladder, 36 ft and higher, an added cable should be used to reduce the height of the disconnecting point so that a ladder can be used. This cable should be left in place until a point in erection that it can be removed safely. In some cases, columns should be unhooked from the crane by using an erection tube or shackle with a pull pin which is released from the ground after the column is stabilized.

The column should be adequately connected and/or braced to safely support the weight of a ladder with an employee on it.

Inverted Tee Beams

Employees erecting inverted tee beams, at a height of 6 to 40 ft, should erect the beam, make initial connections, and final alignment from a ladder. If the employee needs to reach over the side of the beam to bar or make an adjustment to the alignment of the beam, they should mount the beam and be tied off to the lifting device in the beam after ensuring the load has been stabilized on its bearing. To disconnect the crane from the beam an employee should stand a ladder against the beam. Because the use of ladders is not practical at heights above 40 ft, beams should be initially placed with use of tag lines and their final alignment made by a person on a man lift or similar employee positioning systems.

Spandrel Beams

Spandrel beams at the exterior of the building should be aligned as closely as possible with the use of tag lines with the final placement of the spandrel beam made from a ladder at the open end of the structure. A ladder should be used to make the initial connections and a ladder should be used to disconnect the crane. The other end of the beam should be placed by the designated erector from the double tee deck under the observation of the safety monitor.

The beams should be adequately connected and/or braced to safely support the weight of a ladder with an employee on it.

Floor and Roof Members

During installation of the precast concrete floor and/or roof members, the work deck continuously increases in area as more and more units are being erected and positioned. Thus, the unprotected floor/roof perimeter is constantly modified with the leading edge changing location as each member is installed. The fall protection for workers at the leading edge should be assured by properly constructed and maintained control zone lines not more than 60 ft away from the leading edge supplemented by a safety monitoring system to ensure the safety of all designated erectors working within the area defined by the control zone lines.

The hollow core slabs erected on the masonry portion of the building should be erected and grouted using the safety monitoring system. Grout should be placed in the space between the end of the slab and face shell of the concrete masonry by dumping from a wheelbarrow. The grout in the keyways between the slabs should be dumped from a wheelbarrow and then spread with long handled tools, allowing the worker to stand erect facing toward the unprotected edge and back from any work deck edge.

Whenever possible, the designated erectors should approach the incoming member at the leading edge only after it is below waist height so that the member itself provides protection against falls.

Except for the situations described below, when the arriving floor or roof member is within 2 to 3 inches of its final position, the designated erectors can then proceed to their position of erection at each end of the member under the control of the safety monitor. Crane hooks should be unhooked from double tee members by designated erectors under the direction and supervision of the safety monitor.

Designated erectors, while waiting for the next floor or roof member, should be constantly under the control of the safety monitor for fall protection and are directed to stay a minimum of six (6) ft from the edge. In the event a designated erector should move from one end of a member, which has just been placed at the leading edge, they should first move away from the leading edge a minimum of six (6) ft and then progress to the other end while maintaining the minimum distance of six (6) ft at all times.

Erection of double tees, where conditions require bearing of one end into a closed pocket and the other end on a beam ledge, restricting the tee legs from going directly into the pockets, require special considerations. The tee legs that are to bear in the closed pocket should hang lower than those at the beam bearing. The double tee should be "two-lined" in order to elevate one end higher than the other to allow for the low end to be ducked into the closed pocket using the following procedure.

The double tee should be rigged with a standard four-way spreader off of the main load line. An additional choker should be attached to the married point of the two-legged spreader at the end of the tee that is to be elevated. The double tee should be hoisted with the main load line and swung into a position as close as possible to the tee's final bearing elevation. When the tee is in this position and stabilized, the whip line load block should be lowered to just above the tee deck. At this time, two erectors should walk out on the suspended tee deck at midspan of the tee member and pull the load block to the end of the tee to be elevated and attach the additional choker to the load block. The possibility of entanglement with the crane lines and other obstacles during this two lining process while raising and lowering the crane block on that second line could be hazardous to an encumbered employee. Therefore, the designated erectors should not tie off during any part of this process. While the designated erectors

are on the double tee, the safety monitoring system should be used. After attaching the choker, the two erectors then step back on the previously erected tee deck and signal the crane operator to hoist the load with the whip line to the elevation that should allow for enough clearance to let the low end tee legs slide into the pockets when the main load line is lowered. The erector, who is handling the lowered end of the tee at the closed pocket bearing, should step out on the suspended tee. An erection bar should then be placed between the end of the tee leg and the inside face of the pocketed spandrel member.

The tee is barred away from the pocketed member to reduce the friction and lateral force against the pocketed member. As the tee is being lowered, the other erector remains on the tee which was previously erected to handle the other end. At this point the tee is slowly lowered by the crane to a point where the tee legs can freely slide into the pockets. The erector working the lowered end of the tee should keep pressure on the bar between the tee and the face of the pocketed spandrel member to very gradually let the tee legs slide into the pocket to its proper bearing dimension. The tee is then slowly lowered into its final erected position.

The designated erector should be allowed onto the suspended double tee, otherwise there is no control over the horizontal movement of the double tee and this movement could knock the spandrel off of its bearing or the column out of plumb. The control necessary to prevent hitting the spandrel can only be done safely from the top of the double tee being erected.

Load bearing Wall Panels: The erection of the load bearing wall panels on the elevated decks requires the use of a safety monitor and a controlled access zone that is a minimum of 25 ft and a maximum of 1/2 the length of the wall panels away from the unprotected edge, so that designated erectors can move freely and unencumbered when receiving the panels. Bracing, if required for stability, should be installed by ladder. After the braces are secured, the crane should be disconnected from the wall by using a ladder. The wall to wall connections should also be performed from a ladder.

Non-Load bearing Panels (Cladding): The locating of survey lines, panel layout and other installation prerequisites (prewelding, etc.) for non-load bearing panels (cladding) should not commence until floor perimeter and floor openings have been protected. In some areas, it is necessary because of panel configuration to remove the perimeter protection as the cladding is being installed. Removal of perimeter protection should be performed on a bay to bay basis, just ahead of cladding erection to minimize temporarily unprotected floor edges. Those workers within 6 ft of the edge, receiving and positioning the cladding when the perimeter protection is removed should be tied off.

Detailing

Employees exposed to falls of six (6) feet or more to lower levels, who are not actively engaged in leading edge work or connecting activity, such as welding,

bolting, cutting, bracing, guying, patching, painting or other operations, and who are working less than six (6) ft from an unprotected edge should be tied off at all times or guardrails should be installed. Employees engaged in these activities but who are more than six (6) ft from an unprotected edge as defined by the control zone lines, do not require fall protection but a warning line or control lines should be erected to remind employees they are approaching an area where fall protection is required.

IV. CONVENTIONAL FALL PROTECTION CONSIDERED FOR THE POINT OF ERECTION OR LEADING EDGE ERECTION OPERATIONS

A. Personal Fall Arrest Systems

In this particular erection sequence and procedure, personal fall arrest systems requiring body belt/harness systems, lifelines and lanyards should not reduce possible hazards to workers and should create offsetting hazards during their usage at the leading edge of precast/prestressed concrete construction.

Leading edge erection and initial connections are conducted by employees who are specifically trained to do this type of work and are trained to recognize the fall hazards. The nature of such work normally exposes the employee to the fall hazard for a short period of time and installation of fall protection systems for a short duration is not feasible because it exposes the installers of the system to the same fall hazard, but for a longer period of time.

1. It is necessary that the employee be able to move freely without encumbrance in order to guide the sections of precast concrete into their final position without having lifelines attached which should restrict the employee's ability to move about at the point of erection.
2. A typical procedure requires 2 or more workers to maneuver around each other as a concrete member is positioned to fit into the structure. If they are each attached to a lifeline, part of their attention should be diverted from their main task of positioning a member weighing several tons to the task of avoiding entanglements of their lifelines or avoiding tripping over lanyards. Therefore, if these workers are attached to lanyards, more fall potential would result than from not using such a device.

In this specific erection sequence and procedure, retractable lifelines do not solve the problem of two workers becoming tangled. In fact, such a tangle could prevent the lifeline from retracting as the worker moved, thus potentially exposing the worker to a fall greater than 6 ft. Also, a worker crossing over the lifeline of another worker can create a hazard because the movement of one person can unbalance the other. In the event of a fall by one person there is a likelihood that the other person should be caused to fall as well. In addition, if contamination such as grout (during hollow core grouting) enters the retractable housing it can cause

excessive wear and damage to the device and could clog the retracting mechanism as the lanyard is dragged across the deck. Obstructing the cable orifice can defeat the device's shock absorbing function, produce cable slack and damage, and adversely affect cable extraction and retraction.

3. Employees tied to a lifeline can be trapped and crushed by moving structural members if the employee becomes restrained by the lanyard or retractable lifeline and cannot get out of the path of the moving load. The sudden movement of a precast concrete member being raised by a crane can be caused by a number of factors. When this happens, a connector may immediately have to move a considerable distance to avoid injury. If a tied off body belt/harness is being used, the connector could be trapped. Therefore, there is a greater risk of injury if the connector is tied to the structure for this specific erection sequence and procedure.

When necessary to move away from a retractable device, the worker cannot move at a rate greater than the device locking speed typically 3.5 to 4.5 ft/sec. When moving toward the device it is necessary to move at a rate which does not permit cable slack to build up. This slack may cause cable retraction acceleration and cause a worker to lose their balance by applying a higher than normal jerking force on the body when the cable suddenly becomes taut after building up momentum. This slack can also cause damage to the internal spring-loaded drum, uneven coiling of cable on the drum, and possible cable damage.

The factors causing sudden movements for this location include:

- (a) Cranes
 - (1) Operator error.
 - (2) Site conditions (soft or unstable ground).
 - (3) Mechanical failure.
 - (4) Structural failure.
 - (5) Rigging failure.
 - (6) Crane signal/radio communication failure.
- (b) Weather Conditions
 - (1) Wind (strong wind/sudden gusting) - particularly a problem with the large surface areas of precast concrete members.
 - (2) Snow/rain (visibility).

- (3) Fog (visibility).
- (4) Cold - causing slowed reactions or mechanical problems.

- (c) Structure/Product Conditions.
 - (1) Lifting Eye failure.
 - (2) Bearing failure or slippage.
 - (3) Structure shifting.
 - (4) Bracing failure.
 - (5) Product failure.
 - (d) Human Error.
 - (1) Incorrect tag line procedure.
 - (2) Tag line hang-up.
 - (3) Incorrect or misunderstood crane signals.
 - (4) Misjudged elevation of member.
 - (5) Misjudged speed of member.
 - (6) Misjudged angle of member.
4. Anchorages or special attachment points could be cast into the precast concrete members if sufficient preplanning and consideration of erectors' position is done before the members are cast. Any hole or other attachment should be approved by the engineer who designed the member. It is possible that some design restrictions should not allow a member to be weakened by an additional hole; however, it is anticipated that such situations would be the exception, not the rule. Attachment points, other than on the deck surface, should require removal and/or patching. In order to remove and/or patch these points, requires the employee to be exposed to an additional fall hazard at an unprotected perimeter. The fact that attachment points could be available anywhere on the structure does not eliminate the hazards of using these points for tying off as discussed above. A logical point for tying off on double tees would be using the lifting loops, except that they should be cut off to eliminate a tripping hazard at an appropriate time.
5. Providing attachment at a point above the walking/working surface would also create fall exposures for employees installing their devices. Final positioning of a precast concrete member requires it to be moved in such a way that it should pass through the area that would be occupied by the lifeline and the lanyards attached to the point above. Resulting entanglements of lifelines and lanyards on a moving member could pull

employees from the work surface. Also, the structure is being created and, in most cases, there is no structure above the members being placed.

- (a) Temporary structural supports, installed to provide attaching points for lifelines limit the space which is essential for orderly positioning, alignment and placement of the precast concrete members. To keep the lanyards a reasonable and manageable length, lifeline supports would necessarily need to be in proximity to the positioning process. A sudden shift of the precast concrete member being positioned because of wind pressure or crane movement could make it strike the temporary supporting structure, moving it suddenly and causing tied off employees to fall.
- (b) The time in man-hours which would be expended in placing and maintaining temporary structural supports for lifeline attaching points could exceed the expended man-hours involved in placing the precast concrete members. No protection could be provided for the employees erecting the temporary structural supports and these supports would have to be moved for each successive step in the construction process, thus greatly increasing the employee's exposure to the fall hazard.
- (c) The use of a cable strung horizontally between two columns to provide tie off lines for erecting or walking a beam for connecting work is not feasible and creates a greater hazard on this multi-story building for the following reasons:
 - (1) If a connector is to use such a line, it should be installed between the two columns. To perform this installation requires an erector to have more fall exposure time attaching the cable to the columns than would be spent to make the beam to column connection itself.
 - (2) If such a line is to be installed so that an erector can walk along a beam, it should be overhead or below him. For example, if a connector should walk along a 24 in. wide beam, the presence of a line next to the connector at waist level, attached directly to the columns, would prevent the connector from centering their weight over the beam and balancing themselves. Installing the line above the connector might be possible on the first level of a two-story column; however, the column may extend only a few feet above the floor level at the second level or be flush with the floor level.

Attaching the line to the side of the beam could be a solution; however, it would require the connector to attach the lanyard below foot level which would most likely extend a fall farther than 6 ft.

- (3) When lines are strung over every beam, it becomes more and more difficult for the crane operator to lower a precast concrete member into position without the member becoming fouled. Should the member become entangled, it could easily dislodge the line from a column. If a worker is tied to it at the time, a fall could be caused.
6. The ANSI A10.14-1991 American National Standard for Construction and Demolition Operations - Requirements for Safety Belts, Harnesses, Lanyards and Lifelines for Construction and Demolition Use, states that the anchor point of a lanyard or deceleration device should, if possible, be located above the wearer's belt or harness attachment. ANSI A10.14 also states that a suitable anchorage point is one which is located as high as possible to prevent contact with an obstruction below should the worker fall. Most manufacturers also warn in the user's handbook that the safety block/retractable lifeline should be positioned above the D-ring (above the work space of the intended user) and OSHA recommends that fall arrest and restraint equipment be used in accordance with the manufacturer's instructions.

Attachment of a retractable device to a horizontal cable near floor level or using the inserts in the floor or roof members may result in increased free fall due to the dorsal D-ring of the full-body harness riding higher than the attachment point of the snap hook to the cable or insert (e.g., 6 foot tall worker with a dorsal D-ring at 5 feet above the floor or surface, reduces the working length to only one foot, by placing the anchorage five feet away from the fall hazard). In addition, impact loads may exceed maximum fall arrest forces (MAF) because the fall arrest D-ring would be 4 to 5 feet higher than the safety block/retractable lifeline anchored to the walking-working surface; and the potential for swing hazards is increased. Manufacturers also require that workers not work at a level where the point of snap hook attachment to the body harness is above the device because this should increase the free fall distance and the deceleration distance and should cause higher forces on the body in the event of an accidental fall.

Manufacturers recommend an anchorage for the retractable lifeline which is immovably fixed in space and is independent of the user's support systems. A moveable anchorage is one which can be moved around (such as equipment or wheeled vehicles) or which can deflect substantially under shock loading (such as a horizontal cable or very flexible beam). In the case of a very flexible anchorage, a shock load applied to the anchorage during fall arrest can cause oscillation of the flexible anchorage

such that the retractable brake mechanism may undergo one or more cycles of locking/unlocking/locking (ratchet effect) until the anchorage deflection is dampened. Therefore, use of a moveable anchorage involves critical engineering and safety factors and should only be considered after fixed anchorage has been determined to be not feasible.

Horizontal cables used as an anchorage present an additional hazard due to amplification of the horizontal component of maximum arrest force (of a fall) transmitted to the points where the horizontal cable is attached to the structure. This amplification is due to the angle of sag of a horizontal cable and is most severe for small angles of sag. For a cable sag angle of 2 degrees the horizontal force on the points of cable attachment can be amplified by a factor of 15.

It is also necessary to install the retractable device vertically overhead to minimize swing falls. If an object is in the worker's swing path (or that of the cable) hazardous situations exist: (1) due to the swing, horizontal speed of the user may be high enough to cause injury when an obstacle in the swing fall path is struck by either the user or the cable; (2) the total vertical fall distance of the user may be much greater than if the user had fallen only vertically without a swing fall path.

With retractable lines, overconfidence may cause the worker to engage in inappropriate behavior, such as approaching the perimeter of a floor or roof at a distance appreciably greater than the shortest distance between the anchorage point and the leading edge. Though the retractable lifeline may arrest a worker's fall before he or she has fallen a few feet, the lifeline may drag along the edge of the floor or beam and swing the worker like a pendulum until the line has moved to a position where the distance between the anchorage point and floor edge is the shortest distance between those two points. Accounting this pendulum swing is a lowering of the worker, with the attendant danger that he or she may violently impact the floor or some obstruction below.

The risk of a cable breaking is increased if a lifeline is dragged sideways across the rough surface or edge of a concrete member at the same moment that the lifeline is being subjected to a maximum impact loading during a fall. The typical 3/16 in. cable in a retractable lifeline has a breaking strength of from 3000 to 3700 lbs.

7. The competent person, who can take into account the specialized operations being performed on this project, should determine when and where a designated erector cannot use a personal fall arrest system.

B. Safety Net Systems

The nature of this particular precast concrete erection worksite precludes the safe use of safety nets where point of erection or leading edge work should take place.

1. To install safety nets in the interior high bay of the single story portion of the building poses rigging attachment problems. Structural members do not exist to which supporting devices for nets can be attached in the area where protection is required. As the erection operation advances, the location of point of erection or leading edge work changes constantly as each member is attached to the structure. Due to this constant change it is not feasible to set net sections and build separate structures to support the nets.
2. The nature of the erection process for the precast concrete members is such that an installed net would protect workers as they position and secure only one structural member. After each member is stabilized the net would have to be moved to a new location (this could mean a move of 8 to 10 ft or the possibility of a move to a different level or area of the structure) to protect workers placing the next piece in the construction sequence. The result would be the installation and dismantling of safety nets repeatedly throughout the normal work day. As the time necessary to install a net, test, and remove it is significantly greater than the time necessary to position and secure a precast concrete member, the exposure time for the worker installing the safety net would be far longer than for the workers whom the net is intended to protect. The time exposure repeats itself each time the nets and supporting hardware should be moved laterally or upward to provide protection at the point of erection or leading edge.
3. Strict interpretation of 1926.502(c) requires that operations should not be undertaken until the net is in place and has been tested. With the point of erection constantly changing, the time necessary to install and test a safety net significantly exceeds the time necessary to position and secure the concrete member.
4. Use of safety nets on exposed perimeter wall openings and open sided floors, causes attachment points to be left in architectural concrete which should be patched and filled with matching material after the net supporting hardware is removed. In order to patch these openings, additional numbers of employees should be suspended by swing stages, boatswain chairs or other devices, thereby increasing the amount of fall exposure time to employees.
5. Installed safety nets pose an additional hazard at the perimeter of the erected structure where limited space is available in which members can be turned after being lifted from the ground by the crane. There would be a high probability that the member being lifted could become entangled in net hardware, cables, etc.

6. The use of safety nets where structural wall panels are being erected would prevent movement of panels to point of installation. To be effective, nets would necessarily have to provide protection across the area where structural supporting wall panels would be set and plumbed before roof units could be placed.
7. Use of a tower crane for the erection of the high rise portion of the structure poses a particular hazard in that the crane operator cannot see or judge the proximity of the load in relation to the structure or nets. If the signaler is looking through nets and supporting structural devices while giving instructions to the crane operator, it is not possible to judge precise relationships between the load and the structure itself or to nets and supporting structural devices. This could cause the load to become entangled in the net or hit the structure causing potential damage.

C. Guardrail Systems

On this particular worksite, guardrails, barricades, ropes, cables or other perimeter guarding devices or methods on the erection floor should pose problems to safe erection best practice guidelines. Typically, a floor or roof is erected by placing 4 to 10 ft wide structural members next to one another and welding or grouting them together. The perimeter of a floor and roof changes each time a new member is placed into position. It is unreasonable and virtually impossible to erect guardrails and toe boards at the ever changing leading edge of a floor or roof.

1. To position a member safely it is necessary to remove all obstructions extending above the floor level near the point of erection. Such a procedure allows workers to swing a new member across the erected surface as necessary to position it properly without worrying about knocking material off of this surface.

Hollow core slab erection on the masonry wall requires installation of the perimeter protection where the masonry wall has to be constructed. This means the guardrail is installed then subsequently removed to continue the masonry construction. The erector should be exposed to a fall hazard for a longer period of time while installing and removing perimeter protection than while erecting the slabs.

In hollow core work, as in other precast concrete erection, others are not typically on the work deck until the precast concrete erection is complete. The deck is not complete until the leveling, aligning, and grouting of the joints is done. It is normal practice to keep others off the deck until at least the next day after the installation is complete to allow the grout to harden.

2. There is no permanent boundary until all structural members have been placed in the floor or roof. At the leading edge, workers are operating at

the temporary edge of the structure as they work to position the next member in the sequence. Compliance with the standard would require a guardrail and toe board be installed along this edge. However, the presence of such a device would prevent a new member from being swung over the erected surface low enough to allow workers to control it safely during the positioning process. Further, these employees would have to work through the guardrail to align the new member and connect it to the structure. The guardrail would not protect an employee who should lean through it to do the necessary work, rather it would hinder the employee to such a degree that a greater hazard is created than if the guardrail were absent.

3. Guardrail requirements pose a hazard at the leading edge of installed floor or roof sections by creating the possibility of employees being caught between guardrails and suspended loads. The lack of a clear work area in which to guide the suspended load into position for placement and welding of members into the existing structure creates still further hazards.
4. Where erection processes require precast concrete stairways or openings to be installed as an integral part of the overall erection process, it should also be recognized that guardrails or handrails should not project above the surface of the erection floor. Such guardrails should be terminated at the level of the erection floor to avoid placing hazardous obstacles in the path of a member being positioned.

V. OTHER FALL PROTECTION MEASURES CONSIDERED FOR THIS JOB

The following is a list and explanation of other fall protection measures available and an explanation of limitations for use on this particular jobsite. If during the course of erecting the building the employee sees an area that could be erected more safely by the use of these fall protection measures, the foreman should be notified.

A. Scaffolds are not used because:

1. The leading edge of the building is constantly changing and the scaffolding would have to be moved at very frequent intervals. Employees erecting and dismantling the scaffolding would be exposed to fall hazards for a greater length of time than they would by merely erecting the precast concrete member.
2. A scaffold tower could interfere with the safe swinging of a load by the crane.
3. Power lines, terrain and site do not allow for the safe use of scaffolding.

B. Vehicle mounted platforms are not used because:

1. A vehicle mounted platform should not reach areas on the deck that are erected over other levels.
2. The leading edge of the building is usually over a lower level of the building and this lower level should not support the weight of a vehicle mounted platform.
3. A vehicle mounted platform could interfere with the safe swinging of a load by the crane, either by the crane swinging the load over or into the equipment.
4. Power lines and surrounding site work do not allow for the safe use of a vehicle mounted platform.

C. Crane suspended personnel platforms are not used because:

1. A second crane close enough to suspend any employee in the working and erecting area could interfere with the safe swinging of a load by the crane hoisting the product to be erected.
2. Power lines and surrounding site work do not allow for the safe use of a second crane on the job.

VI. **ENFORCEMENT**

Constant awareness of and respect for fall hazards, and compliance with all safety rules are considered conditions of employment. The jobsite Superintendent, as well as individuals in the Safety and Personnel Department, reserve the right to issue disciplinary warnings to employees, up to and including termination, for failure to follow the best practice guidelines of this program.

VII. **ACCIDENT INVESTIGATIONS**

All accidents that result in injury to workers, regardless of their nature, should be investigated and reported. It is an integral part of any safety program that documentation take place as soon as possible so that the cause and means of prevention can be identified to prevent a reoccurrence.

In the event that an employee falls or there is some other related, serious incident occurring, this plan should be reviewed to determine if additional practices, best practice guidelines, or training need to be implemented to prevent similar types of falls or incidents from occurring.

VIII. **CHANGES TO PLAN**

Any changes to the plan should be approved by (name of the qualified person). This plan should be reviewed by a qualified person as the job progresses to determine if additional practices, best practice guidelines or training needs to be

implemented by the competent person to improve or provide additional fall protection. Workers should be notified and trained, if necessary, in the new best practice guidelines. A copy of this plan and all approved changes should be maintained at the jobsite.

ATTACHMENT B

Sample Fall Protection Plan for Residential Construction Marion County

This Fall Protection Plan Is Specific For The Following Project:

Location of Job
Date Plan Prepared or Modified
Plan Prepared By
Plan Approved By
Plan Supervised By

I. Statement of County Policy

Marion County is dedicated to the protection of its employees from on-the-job injuries. All employees of Marion County have the responsibility to work safely on the job. The purpose of the plan is to supplement our existing safety and health program and to ensure that every employee who works for Marion County recognizes workplace fall hazards and takes the appropriate measures to address those hazards.

This Fall Protection Plan addresses the use of conventional fall protection at a number of areas on the project, as well as identifies specific activities that require non-conventional means of fall protection. During the construction of residential buildings under 48 feet in height, it is sometimes infeasible or it creates a greater hazard to use conventional fall protection systems at specific areas or for specific tasks. The areas or tasks may include, but are not limited to:

- a. Setting and bracing of roof trusses and rafters;
- b. Installation of floor sheathing and joists;
- c. Roof sheathing operations; and
- d. Erecting exterior walls
- e. Roofing work on residential

In these cases, conventional fall protection systems may not be the safest choice for builders. This plan is designed to enable employers and employees to recognize the fall hazards associated with this job and to establish the safest best practice guidelines that are to be followed in order to prevent falls to lower levels or through holes and openings in walking/working surfaces.

Each employee should be trained in these best practice guidelines and should strictly adhere to them except when doing so would expose the employee to a greater hazard. If, in the employee's opinion, this is the case, the employee is to notify the competent person of their concern and have the concern addressed before proceeding.

It is the responsibility of (name of competent person) to implement this Fall Protection Plan. Continual observational safety checks of work operations and the enforcement of the safety policy and best practice guidelines should be regularly enforced. The crew

supervisor or foreman (insert name) is responsible for correcting any unsafe practices or conditions immediately.

It is the responsibility of the employer to ensure that all employees understand and adhere to the best practice guidelines of this plan and to follow the instructions of the crew supervisor. It is also the responsibility of the employee to bring to management's attention any unsafe or hazardous conditions or practices that may cause injury to either themselves or any other employees. Any changes to the Fall Protection Plan should be approved by (name of qualified person).

II. Fall Protection Systems To Be Used on This Job

Installation of roof trusses/rafters, exterior wall erection, roof sheathing, floor sheathing and joist/truss activities should be conducted by employees who are specifically trained to do this type of work and are trained to recognize the fall hazards. The nature of such work normally exposes the employee to the fall hazard for a short period of time. This Plan details how Marion County should minimize these hazards.

Controlled Access Zones

When using the Plan to implement the fall protection options available, workers should be protected through limited access to high hazard locations. Before any non-conventional fall protection systems are used as part of the work plan, a controlled access zone (CAZ) should be clearly defined by the competent person as an area where a recognized hazard exists. The demarcation of the CAZ should be communicated by the competent person in a recognized manner, either through signs, wires, tapes, ropes or chains.

Marion County should take the following steps to ensure that the CAZ is clearly marked or controlled by the competent person:

All access to the CAZ should be restricted to authorized entrants;

All workers who are permitted in the CAZ should be listed in the appropriate sections of the Plan (or be visibly identifiable by the competent person) prior to implementation;

The competent person should ensure that all protective elements of the CAZ be implemented prior to the beginning of work.

Installation Best practice guidelines for Roof Truss and Rafter Erection

During the erection and bracing of roof trusses/rafters, conventional fall protection may present a greater hazard to workers. On this job, safety nets, guardrails and personal fall arrest systems should not provide adequate fall protection because the nets should cause the walls to collapse, while there are no suitable attachment or anchorage points for guardrails or personal fall arrest systems.

On this job, requiring workers to use a ladder for the entire installation process should cause a greater hazard because the worker should stand on the ladder with his back or side to the front of the ladder. While erecting the truss or rafter the worker should need both hands to maneuver the truss and therefore cannot hold onto the ladder. In addition, ladders cannot be adequately protected from movement while trusses are being maneuvered into place. Many workers may experience additional fatigue because of the increase in overhead work with heavy materials, which can also lead to a greater hazard.

Exterior scaffolds cannot be utilized on this job because the ground, after recent backfilling, cannot support the scaffolding. In most cases, the erection and dismantling of the scaffold would expose workers to a greater fall hazard than erection of the trusses/rafters.

On all walls eight feet or less, workers should install interior scaffolds along the interior wall below the location where the trusses/rafters should be erected. "Sawhorse" scaffolds constructed of 46 inch sawhorses and 2x10 planks should often allow workers to be elevated high enough to allow for the erection of trusses and rafters without working on the top plate of the wall.

In structures that have walls higher than eight feet and where the use of scaffolds and ladders would create a greater hazard, safe working best practice guidelines should be utilized when working on the top plate and should be monitored by the crew supervisor. During all stages of truss/rafter erection the stability of the trusses/rafters should be ensured at all times.

Marion County should take the following steps to protect workers who are exposed to fall hazards while working from the top plate installing trusses/rafters:

Only the following trained workers should be allowed to work on the top plate during roof truss or rafter installation:

Workers should have no other duties to perform during truss/rafter erection best practice guidelines;

All trusses/rafters should be adequately braced before any worker can use the truss/rafter as a support;

Workers should remain on the top plate using the previously stabilized truss/rafter as a support while other trusses/rafters are being erected;

Workers should leave the area of the secured trusses only when it is necessary to secure another truss/rafter;

The first two trusses/rafters should be set from ladders leaning on side walls at points where the walls can support the weight of the ladder; and

A worker should climb onto the interior top plate via a ladder to secure the peaks of the first two trusses/rafters being set.

The workers responsible for detaching trusses from cranes and/or securing trusses at the peaks traditionally are positioned at the peak of the trusses/rafters. There are also situations where workers securing rafters to ridge beams should be positioned on top of the ridge beam.

(Your county name here) should take the following steps to protect workers who are exposed to fall hazards while securing trusses/rafters at the peak of the trusses/ridge beam:

Only the following trained workers should be allowed to work at the peak during roof truss or rafter installation:

Once truss or rafter installation begins, workers not involved in that activity should not stand or walk below or adjacent to the roof opening or exterior walls in any area where they could be struck by falling objects;

Workers should have no other duties than securing/bracing the trusses/ridge beam;

Workers positioned at the peaks or in the webs of trusses or on top of the ridge beam should work from a stable position, either by sitting on a "ridge seat" or other equivalent surface that provides additional stability or by positioning themselves in previously stabilized trusses/rafters and leaning into and reaching through the trusses/rafters;

Workers should not remain on or in the peak/ridge any longer than necessary to safely complete the task.

Roof Sheathing Operations

Workers typically install roof sheathing after all trusses/rafters and any permanent truss bracing is in place. **Roof structures are unstable until some sheathing is installed, so workers installing roof sheathing cannot be protected from fall hazards by conventional fall protection systems until it is determined that the roofing system can be used as an anchorage point. At that point, employees should be protected by a personal fall arrest system.**

Trusses/rafters are subject to collapse if a worker falls while attached to a single truss with a belt/harness. Nets could also cause collapse, and there is no place to attach guardrails.

All workers should ensure that they have secure footing before they attempt to walk on the sheathing, including cleaning shoes/boots of mud or other slip hazards.

To minimize the time workers should be exposed to a fall hazard, materials should be staged to allow for the quickest installation of sheathing.

Marion County should take the following steps to protect workers who are exposed to fall hazards while installing roof sheathing:

Once roof sheathing installation begins, workers not involved in that activity should not stand or walk below or adjacent to the roof opening or exterior walls in any area where they could be struck by falling objects;

The competent person should determine the limits of this area, which should be clearly communicated to workers prior to placement of the first piece of roof sheathing;

The competent person may order work on the roof to be suspended for brief periods as necessary to allow other workers to pass through such areas when this would not create a greater hazard;

Only qualified workers should install roof sheathing;

The bottom row of roof sheathing may be installed by workers standing in truss webs;

After the bottom row of roof sheathing is installed, a slide guard extending the width of the roof should be securely attached to the roof. Slide guards are to be constructed of no less than nominal 4" height capable of limiting the uncontrolled slide of workers. Workers should install the slide guard while standing in truss webs and leaning over the sheathing;

Additional rows of roof sheathing may be installed by workers positioned on previously installed rows of sheathing. A slide guard can be used to assist workers in retaining their footing during successive sheathing operations; and

Additional slide guards should be securely attached to the roof at intervals not to exceed 13 feet as successive rows of sheathing are installed. For roofs with pitches in excess of 9-in-12, slide guards should be installed at four-foot intervals.

When wet weather (rain, snow, or sleet) are present, roof sheathing operations should be suspended unless safe footing can be assured for those workers installing sheathing.

When strong winds (above 40 miles per hour) are present, roof sheathing operations are to be suspended unless wind breakers are erected. Installation of Floor Joists and Sheathing During the installation of floor sheathing/joists (leading edge construction), the following steps should be taken to protect workers:

Only the following trained workers should be allowed to install floor joists or sheathing:

Materials for the operations should be conveniently staged to allow for easy access to workers;

The first floor joists or trusses should be rolled into position and secured either from the ground, ladders or sawhorse scaffolds;

Each successive floor joist or truss should be rolled into place and secured from a platform created from a sheet of plywood laid over the previously secured floor joists or trusses;

Except for the first row of sheathing which should be installed from ladders or the ground, workers should work from the established deck; and

Any workers not assisting in the leading edge construction while leading edges still exist (e.g. cutting the decking for the installers) should not be permitted within six feet of the leading edge under construction.

Erection of Exterior Walls

During the construction and erection of exterior walls, employers should take the following steps to protect workers:

Only the following trained workers should be allowed to erect exterior walls:

A painted line six feet from the perimeter should be clearly marked prior to any wall erection activities to warn of the approaching unprotected edge;

Materials for operations should be conveniently staged to minimize fall hazards; and

Workers constructing exterior walls should complete as much cutting of materials and other preparation as possible away from the edge of the deck.

Roofing work: If the roof is 6' or more above lower levels and the slope is 4:12 (vertical to horizontal) or less, than all those options available to commercial roofing operations on a flat roof (CFR 29 1926.501(b)(10)) are applicable. These include the use of guard rails, personal fall arrest systems or safety nets as first line of defense, or a combination of a warning line system (at least 6' from edge) and guardrail system, warning line system and safety net system, or warning line system and personal fall arrest system, or warning line system and safety monitoring system. See CFR 29 1926.502(f) Warning line systems and CFR 29 1926.502(h) for Safety monitoring systems. On roofs 50' or less in width the use of a safety monitor alone may be used.

On roofs that are 6' or more above lower levels and the slope is greater than 4:12 the first line of defense is guard rails, personal fall arrest systems or safety nets. Although, if these are infeasible or create a greater hazard, and the employer can demonstrate as such for the

roofing process of a particular project or roofing task, then the following alternatives may be used:

The alternative best practice guidelines in this Instruction may only be used for this work where: (a) the roof slope is 8 in 12 or less, **and** (b) the fall distance, measured from the eave to the ground level, is 25 feet or less. Over 25' then conventional fall protection systems should be used.

A. General Requirements.

1. Trained Workers Only.
Only workers who have been trained to be proficient in the alternative methods of fall protection should be allowed onto the roof. In addition, each affected employee should be trained to ensure specific awareness of the fall hazards associated with work on roofs with rake edges ("rake edges" are inclined roof edges, such as those on the gable end of a building).
2. Slip Hazards
The roof surfaces should be inspected for slipping hazards. The employer should either eliminate any such hazards or take effective measures to have workers avoid them. The employer should have workers wear appropriate footwear to reduce the potential for slipping.
3. Bad Weather.
When adverse weather (such as high winds, rain, snow, or sleet) creates a hazardous condition, roofing operations should be suspended until the hazardous condition no longer exists.
4. Roof holes/openings.
The employer should have any damaged portions of the roof deck repaired as soon as practicable. Any holes (including skylight openings) or other areas where employees would not have safe footing should be covered or surrounded by guardrails that comply with the requirements of 1926.502.
5. Ladders/Scaffolds.
If ladders or scaffolds are used, they should be erected and maintained in accordance with the requirements of Subparts X and L of OSHA's construction standards. In addition, employees should be trained in accordance with the requirements of Subparts X & L.
6. Access To Roof.
Employers should not allow workers to ascend or descend the roof's slope within 6 feet of the rake edge except where that limitation would prevent the performance of work.
7. Location of Materials.
Supplies and materials should not be stored within 6 feet of the rake edge, or three feet where tile roof systems are being installed.

8. Impalement Hazards.

The area below the eaves and rakes should be kept clear of materials and other objects which could pose impalement or other hazards, or properly guarded.

B. Safety Monitors and Slide Guards (for roofs with an eave height of up to and including 25 feet).

1. Roof Slope (Any Roof Type): Up to 4 in 12. The employer should use either a safety monitoring system that complies with 1926.502(h), or roofing slide guards. If slide guards are used, they should be built and installed in accordance with the requirements set out below.
2. Roof Slope (Except Tile or Metal Roofs): Over 4 in 12 (and up to 8 in 12): Slide guards are required.
3. Roof Slope (Tile or Metal Roofs): Up to (and including) 8 in 12: The safety monitoring system may be used instead of slide guards.
4. Roof Slope (Any Roof Type): Over 8 in 12: Alternatives to the requirements of the standards are not available.
5. Eave Height Over 25 feet (Any Slope, Any Roof Type): Alternatives to the requirements of the standards are not available.

C. Slide Guards: Requirements for Materials, Configuration and Installation.

1. Roof Slope: 6 in 12 or less:
 - Material. All slide guards should be constructed of 2"x 6" (nominal) stock.
 - Installation. No more than three rows of roofing material (installed across the lower eave) should be applied before installing the slide guards. The roof jacks (or similar supports) should be installed using nails long enough to withstand an employee sliding into the guard.
 - Configuration. The face of the slide guard should be perpendicular (about 90 degrees) to the surface of the roof. There should be continuous slide guards along the eave.
2. Roof Slope: Over 6 in 12 (up to and including 8 in 12):
 - Material: 2"x 6" stock.
 - Installation: Continuous slide guards should be installed along the eave, as described above. Additional slide guards should be installed below each work area at intervals not to exceed eight feet. They should be installed using the following procedure: the employee, while standing on the slide guard below, secures the roof jacks for the next slide guard with nails and then installs the planks. The employee then climbs up to the new slide guard to continue the roofing work. This sequence is repeated as work proceeds up the roof.
 - Configuration: The continuous slide guards at the eave should be at about 90 degrees to the roof surface, as described above. The additional slide guards need not be

continuous -- but they should be long enough to protect the work area. They do not have to be at 90 degrees to the roof surface.

- Removal: Once the roofing material is installed to the ridge, the employee is to climb down to the next lower slide guard and remove the upper slide guard. The employee repeats this process down the roof until all the slide guards are removed. Only when the roofing job is completed may the slide guards at the eave be removed.

III. Enforcement

Constant awareness of and respect for fall hazards, and compliance with all safety rules are considered conditions of employment. The crew supervisor or foreman, as well as individuals in the Safety and Personnel Department, reserve the right to issue disciplinary warnings to employees, up to and including termination, for failure to follow the best practice guidelines of this program.

IV. Accident Investigations

All accidents that result in injury to workers, regardless of their nature, should be investigated and reported. It is an integral part of any safety program that documentation take place as soon as possible so that the cause and means of prevention can be identified to prevent a reoccurrence.

In the event that an employee falls or there is some other related, serious incident occurring, this plan should be reviewed to determine if additional practices, best practice guidelines, or training need to be implemented to prevent similar types of falls or incidents from occurring.

V. Changes to Plan

Any changes to the plan should be approved by (name of the qualified person). This plan should be reviewed by a qualified person as the job progresses to determine if additional practices, best practice guidelines or training needs to be implemented by the competent person to improve or provide additional fall protection. Workers should be notified and trained, if necessary, in the new best practice guidelines. A copy of this plan and all approved changes should be maintained at the jobsite.

Respiratory Protection Safety Program for Marion County

1.0 Purpose

Marion County has determined that employees performing _____ (*list the activities requiring respirators*) _____ are exposed to respiratory hazards during routine operations. These hazards include wood dust, particulates, and vapors, and in some cases represent Immediately Dangerous to Life or Health (IDLH) conditions. The purpose of this program is to ensure that all county employees are protected from exposure to these respiratory hazards.

Engineering controls, such as ventilation and substitution of less toxic materials, are the first line of defense **Marion County**; however, engineering controls have not always been feasible for some of our operations, or have not always completely controlled the identified hazards. In these situations, respirators and other protective equipment should be used. Respirators are also needed to protect employees' health during emergencies. The work processes requiring respirator use at **Marion County** are outlined in Table 1 in the Scope and Application section of this program. In addition, some employees have expressed a desire to wear respirators during certain operations that do not require respiratory protection. As a general policy **Marion County** should review each of these requests on a case-by-case basis. If the use of respiratory protection in a specific case should not jeopardize the health or safety of the worker(s) **Marion County** should provide respirators for voluntary use. As outlined in the Scope and Application section of this program, voluntary respirator use is subject to certain requirements of this program.

2.0 Scope and Application

This program applies to all employees who are required to wear respirators during normal work operations, and during some non-routine or emergency operations such as a spill of a hazardous substance. This includes all employees performing _____ (*Applicable job tasks*) _____. All employees working in these areas and engaged in certain processes or tasks (as outlined in the table below) should be enrolled in the county's respiratory protection program.

In addition, any employee who voluntarily wears a respirator when a respirator is not required (i.e., in certain maintenance and coating operations) is subject to the medical evaluation, cleaning, maintenance, and storage elements of this program, and should be provided with certain information specified in this section of the program. Employees who voluntarily wear filtering face pieces (dust masks) are not subject to the medical evaluation, cleaning, storage, and maintenance provisions of this program.

Employees participating in the respiratory protection program do so at no cost to them. The expense associated with training, medical evaluations and respiratory protection equipment should be borne by the county.

TABLE 1: VOLUNTARY AND REQUIRED RESPIRATOR USE AT Marion County	
Respirator	Department/Process
Filtering face piece (dust mask)	Voluntary use for warehouse workers
Half-face piece APR or PAPR with P100 filter	Prep and Assembly Voluntary use for maintenance workers when cleaning spray booth walls or changing spray booth filter
SAR, pressure demand, with auxiliary SCBA	Maintenance - dip coat tank cleaning
Continuous flow SAR with hood	Spray booth operations Prep (cleaning)*
Half-face piece APR with organic vapor cartridge	Voluntary use for Dip Coat Tenders, Spray Booth Operators (gun cleaning), and Maintenance workers (loading coating agents into supply systems)
Escape SCBA	Dip Coat, Coatings Storage Area, Spray Booth Cleaning Area

* until ventilation is installed.

3.0 Responsibilities

A. Program Administrator

The Program Administrator is responsible for administering the respiratory protection program. Duties of the program administrator include:

- Identifying work areas, processes or tasks that require workers to wear respirators, and evaluating hazards.
- Selection of respiratory protection options.
- Monitoring respirator use to ensure that respirators are used in accordance with their certifications.
- Arranging for and/or conducting training.
- Ensuring proper storage and maintenance of respiratory protection equipment.
- Conducting qualitative fit testing with Bitrex.
- Administering the medical surveillance program.
- Maintaining records required by the program.
- Evaluating the program.
- Updating written program, as needed.

The Program Administrator for **Marion County** is _____ ***(Responsible Person)***.

B. Supervisors

Supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular areas. In addition to being knowledgeable about the program requirements for their own protection, supervisors should also ensure that the program is understood and followed by the employees under their charge. Duties of the supervisor include:

- a. Ensuring that employees under their supervision (including new hires) have received appropriate training, fit testing, and initial medical evaluation.
- b. Ensuring the availability of appropriate respirators and accessories.
- c. Being aware of tasks requiring the use of respiratory protection.
- d. Enforcing the proper use of respiratory protection when necessary.
- e. Ensuring that respirators are properly cleaned, maintained, and stored according to the respiratory protection plan.
- f. Ensuring that respirators fit well and do not cause discomfort.
- g. Continually monitoring work areas and operations to identify respiratory hazards.

- h. Coordinating with the Program Administrator on how to address respiratory hazards or other concerns regarding the program.

C. Employees

Each employee has the responsibility to wear his or her respirator when and where required and in the manner in which they were trained. Employees should also:

- Care for and maintain their respirators as instructed, and store them in a clean sanitary location.
- Inform their supervisor if the respirator no longer fits well, and request a new one that fits properly.
- Inform their supervisor or the Program Administrator of any respiratory hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding the program.

4.0 Program Elements

A. Selection Best practice guidelines

The Program Administrator should select respirators to be used on site, based on the hazards to which workers are exposed and in accordance with all OSHA standards. The Program Administrator should conduct a hazard evaluation for each operation, process, or work area where airborne contaminants may be present in routine operations or during an emergency. The hazard evaluation should include:

1. Identification and development of a list of hazardous substances used in the workplace, by department, or work process.
2. Review of work processes to determine where potential exposures to these hazardous substances may occur. This review should be conducted by surveying the workplace, reviewing process records, and talking with employees and supervisors.
3. Exposure monitoring to quantify potential hazardous exposures. Monitoring should be contracted out. **Marion County** currently has a contract with ABC Industrial Hygiene Services to provide monitoring when needed.

The results of the current hazard evaluation are the following: (Table 3 at the end of this program contains the sampling data that this section was based on.)

THIS IS ONLY AN EXAMPLE:

Prep-sanding: *Ventilation controls on some sanders are in place, but employees continue to be exposed to respirable wood dust at 2.5 - 7.0 mg/m³ (8 hour time-weighted-average, or TWA). Half-face piece APRs with P100 filters and goggles are required for employees sanding wood pieces. PAPRs should be available for employees who are unable to wear an APR.*

Prep-cleaning: *Average methylene chloride exposures measured at 70 ppm based on 8 hr. TWA exposure results for workers cleaning/stripping furniture pieces. Ventilation controls are planned, but should not be implemented until designs are completed and a contract has been let for installation of the controls. In the meantime, employees should wear supplied air hoods with continuous air flow, as required by the Methylene Chloride standard 1910.1052.*

Assembly: *Ventilation controls on sanders are in place, but employees continue to be exposed to respirable wood dust at 2.5 - 6.0 mg/m³ (8 hour TWA); half-face piece APRs with P100 filters and goggles are required for employees sanding wood pieces in the assembly department. PAPRs should be available for employees who are unable to wear an APR. The substitution for aqueous-based glues should eliminate exposures to formaldehyde, methylene chloride, and epoxy resins.*

Maintenance: *Because of potential IDLH conditions, employees cleaning dip coat tanks should wear a pressure demand SAR during the performance of this task.*

Employees may voluntarily wear half-face piece APRs with P100 cartridges when cleaning spray booth walls or changing booth filters and half-face piece APRs with organic vapor cartridges when loading coating agents into supply systems. Although exposure monitoring has shown that exposures are kept within PELs during these best practice guidelines, **Marion County** should provide respirators to workers who are concerned about potential exposures.

B. Updating the Hazard Assessment

The Program Administrator should revise and update the hazard assessment as needed (i.e., any time work process changes may potentially affect exposure). If an employee feels that respiratory protection is needed during a particular activity, he/she is to contact his or her supervisor or the Program Administrator. The Program Administrator should evaluate the potential hazard, arranging for outside assistance as necessary. The Program

Administrator should then communicate the results of that assessment back to the employees. If it is determined that respiratory protection is necessary, all other elements of this program should be in effect for those tasks and this program should be updated accordingly.

C. NIOSH Certification

All respirators should be certified by the National Institute for Occupational Safety and Health (NIOSH) and should be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters should be labeled with the appropriate NIOSH approval label. The label should not be removed or defaced while it is in use.

D. Voluntary Respirator Use

Marion County should provide respirators at no charge to employees for voluntary use for the following work processes:

- Employees may wear half-face piece APRs with organic vapor cartridges while working in the dip coat area.
- Warehouse workers may wear filtering face pieces.
- Spray Booth Operators may wear half-face piece APRs with organic vapor cartridges while cleaning spray guns.
- Maintenance personnel may wear half-face piece APRs with P100 cartridges while cleaning spray booth walls, and organic vapor cartridges while loading spray guns.

The Program Administrator should provide all employees who voluntarily choose to wear either of the above respirators with a copy of Appendix D of the standard. (Appendix D details the requirements for voluntary use of respirators by employees.) Employees choosing to wear a half face piece APR should comply with the best practice guidelines for Medical Evaluation, Respirator Use, and Cleaning, Maintenance and Storage.

The Program Administrator should authorize voluntary use of respiratory protective equipment as requested by all other workers on a case-by-case basis, depending on specific workplace conditions and the results of the medical evaluations.

E. Medical Evaluation

1. Employees who are either required to wear respirators, or who choose to wear an APR voluntarily, should pass a medical exam before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until a physician has determined that they are medically

able to do so. Any employee refusing the medical evaluation should not be allowed to work in an area requiring respirator use.

2. A licensed physician at **(LOCATION OF DOCTOR)** , where all county medical services are provided, should provide the medical evaluations. Medical evaluation best practice guidelines are as follows:
- The medical evaluation should be conducted using the questionnaire provided in Appendix C of the respiratory protection standard. The Program Administrator should provide a copy of this questionnaire to all employees requiring medical evaluations.
 - To the extent feasible, the county should assist employees who are unable to read the questionnaire (by providing help in reading the questionnaire). When this is not possible, the employee should be sent directly to the physician for medical evaluation.
 - All affected employees should be given a copy of the medical questionnaire to fill out, along with a stamped and addressed envelope for mailing the questionnaire to the county physician. Employees should be permitted to fill out the questionnaire on county time.
 - Follow-up medical exams should be granted to employees as required by the standard, and/or as deemed necessary by the ABC medical clinic physician.
 - All employees should be granted the opportunity to speak with the physician about their medical evaluation, if they so request.
 - The Program Administrator has provided the ABC medical clinic physician with a copy of this program, a copy of the Respiratory Protection standard, the list of hazardous substances by work area, and for each employee requiring evaluation: his or her work area or job title, proposed respirator type and weight, length of time required to wear respirator, expected physical work load (light, moderate, or heavy), potential temperature and humidity extremes, and any additional protective clothing required.
 - Any employee required for medical reasons to wear a positive pressure air purifying respirator should be provided with a powered air purifying respirator.
 - After an employee has received clearance and begun to wear his or her respirator, additional medical evaluations should be provided under the following circumstances:
 - * Employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing.

- * The ABC medical clinic physician or supervisor informs the Program Administrator that the employee needs to be reevaluated;
 - * Information from this program, including observations made during fit testing and program evaluation, indicates a need for reevaluation;
 - * A change occurs in workplace conditions that may result in an increased physiological burden on the employee.
3. A list of **Marion County** employees currently included in medical surveillance is provided in Table 2 of this program.
 4. All examinations and questionnaires are to remain confidential between the employee and the physician.

F. Fit Testing

1. Fit testing is required for employees wearing half-face piece APRs for exposure to wood dust in Prep and Assembly, and maintenance workers who wear a tight-fitting SAR for dip tank cleaning. Employees voluntarily wearing half-face piece APRs may also be fit tested upon request.
2. Employees who are required to wear half-face piece APRs should be fit tested:
 - Prior to being allowed to wear any respirator with a tight fitting face piece.
 - Annually.
 - When there are changes in the employee' s physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, etc.).
3. Employees should be fit tested with the make, model, and size of respirator that they should actually wear. Employees should be provided with several models and sizes of respirators so that they may find an optimal fit. Fit testing of PAPRs is to be conducted in the negative pressure mode.
4. The Program Administrator should conduct fit tests following the OSHA approved Bitrex Solution Aerosol QLFT Protocol in Appendix B (B4) of the Respiratory Protection standard.
5. The Program Administrator has determined that QNFT is not required for the respirators used under current conditions at **Marion County**. If

conditions affecting respirator use change, the Program Administrator should evaluate on a case-by-case basis whether QNFT is required.

G. Respirator Use

Respiratory protection is required for the following personnel;

TABLE 2: Marion County Personnel in Respiratory Protection Program			
Name	Department	Job Description/ Work Procedure	Respirator
		Operator	Half mask APR P100 filter when sanding/ AR continuous flow hood for cleaning
		Dip tank cleaning	SAR, pressure demand with auxiliary SCBA
		Spray Booth	SAR, continuous

H. General Use Best practice guidelines

1. Employees should use their respirators under conditions specified by this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator should not be used in a manner for which it is not certified by NIOSH or by its manufacturer.
2. All employees should conduct user seal checks each time that they wear their respirator. Employees should use either the positive or negative pressure check (depending on which test works best for them) specified in Appendix B- 1 of the Respiratory Protection Standard.
3. All employees should be permitted to leave the work area to go to the locker room to maintain their respirator for the following reasons: to clean their respirator if the respirator is impeding their ability to work, change filters or cartridges, replace parts, or to inspect respirator if it stops functioning as intended. Employees should notify their supervisor before leaving the area.
4. Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures, that prevents them from achieving a good seal. Employees are not permitted to wear headphones, jewelry, or other articles that may interfere with the face piece-to-face seal.

I. Emergency Best practice guidelines

The following work areas have been identified as having foreseeable emergencies:

- Spray Booth Cleaning Area - spill of hazardous waste
- Dip Coat Area - malfunction of ventilation system, leak in supply system
- Coatings Storage Area - spill or leak of hazardous substances

When the alarm sounds, employees in the affected department should immediately don their emergency escape respirator, shut down their process equipment, and exit the work area. All other employees should immediately evacuate the building. Marion County's Emergency Action Plan describes these best practice guidelines (including proper evacuation routes and rally points) in greater detail.

Emergency escape respirators are located: **(This is specific to the facility)**

- Locker #1 in the Spray Booth Area
- Storage cabinet #3 in Dip Coat/Drying Area
- Locker #4 in the Coatings Storage Area

Respiratory protection in these instances is for escape purposes only.

Marion County employees are not trained as emergency responders, and are not authorized to act in such a manner.

J. Respirator Malfunction

1. For any malfunction of an APR (e.g., such as breakthrough, face piece leakage, or improperly working valve), the respirator wearer should inform his or her supervisor that the respirator no longer functions as intended, and go to the designated safe area to maintain the respirator. The supervisor should ensure that the employee receives the needed parts to repair the respirator, or is provided with a new respirator.

All workers wearing atmosphere-supplying respirators should work with a buddy. Buddies should assist workers who experience an SAR malfunction as follows:

2. If a worker in the spray booth experiences a malfunction of an SAR, he or she should signal to the buddy that he or she has had a respirator malfunction. The buddy should don an emergency escape respirator and aid the worker in immediately exiting the spray booth.
3. Workers cleaning wood pieces or assembled furniture in the Prep department should work with a buddy. If one of the workers experiences a

respirator malfunction, he/she should signal this to their buddy. The buddy should immediately stop what he or she is doing to escort the employee to the Prep staging area where the employee can safely remove the SAR.

K. IDLH Best practice guidelines

The Program Administrator has identified the following area as presenting the potential for IDLH conditions:

EXAMPLE

Dip Coat Tank Cleaning: Maintenance workers should be periodically required to enter the dip tank to perform scheduled or unscheduled maintenance. In such cases, workers should follow the permit required confined space entry best practice guidelines specified in the Marion County Confined Space Program. As specified in these best practice guidelines, the Program Administrator has determined that workers entering this area should wear a pressure demand SAR. In addition, an appropriately trained and equipped standby person should remain outside the dip tank and maintain constant voice and visual communication with the worker. In the event of an emergency requiring the standby person to enter the IDLH environment, the standby person should immediately notify the Program Administrator and should proceed with rescue operations in accordance with rescue best practice guidelines outlined in the Marion County Confined Space Program.

L. Air Quality

For supplied-air respirators, only Grade D breathing air should be used in the cylinders. The Program Administrator should coordinate deliveries of compressed air with the county's vendor, Compressed Air Inc., and require Compressed Air Inc. to certify that the air in the cylinders meets the specifications of Grade D breathing air.

The Program Administrator should maintain a minimum air supply of one fully charged replacement cylinder for each SAR unit. In addition, cylinders may be recharged as necessary from the breathing air cascade system located near the respirator storage area. The air for this system is provided by Marion County's supplier, and deliveries of new air are coordinated by the Program Administrator.

M. Cleaning, Maintenance, Change Schedules and Storage

1. *Cleaning*

Respirators are to be regularly cleaned and disinfected at the designated respirator cleaning station located in the employee locker room.

Respirators issued for the exclusive use of an employee should be cleaned as often as necessary, but at least once a day for workers in the Prep and Assembly departments.

Atmosphere supplying and emergency use respirators are to be cleaned and disinfected after each use.

The following procedure is to be used when cleaning and disinfecting respirators:

- Disassemble respirator, removing any filters, canisters, or cartridges.
- Wash the face piece and associated parts in a mild detergent with warm water. Do not use organic solvents.
- Rinse completely in clean warm water.
- Wipe the respirator with disinfectant wipes (70% Isopropyl Alcohol) to kill germs.
- Air dry in a clean area.
- Reassemble the respirator and replace any defective parts.
- Place in a clean, dry plastic bag or other air tight container.

Note: The Program Administrator should ensure an adequate supply of appropriate cleaning and disinfection material at the cleaning station. If supplies are low, employees should contact their supervisor, who should inform the Program Administrator.

N. Maintenance

1. Respirators are to be properly maintained at all times in order to ensure that they function properly and adequately protect the employee. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts should be replaced prior to use. No components should be replaced or repairs made beyond those recommended by the manufacturer. Repairs to regulators or alarms of atmosphere-supplying respirators should be conducted by the manufacturer.
2. The following checklist should be used when inspecting respirators:

Face piece:

- * cracks, tears, or holes
- * facemask distortion
- * cracked or loose lenses/face shield

Head straps:

- * breaks or tears
- * broken buckles

Valves:

- * residue or dirt
- * cracks or tears in valve material

Filters/Cartridges:

- * approval designation
- * gaskets
- * cracks or dents in housing
- * proper cartridge for hazard

Air Supply Systems:

- * breathing air quality/grade
- * condition of supply hoses
- * hose connections
- * settings on regulators and valves

3. Employees are permitted to leave their work area to perform limited maintenance on their respirator in a designated area that is free of respiratory hazards. Situations when this is permitted include to wash their face and respirator face piece to prevent any eye or skin irritation, to replace the filter, cartridge or canister, and if they detect vapor or gas breakthrough or leakage in the face piece or if they detect any other damage to the respirator or its components.

O. Change Schedules

1. Employees wearing APRs or PAPRs with P100 filters for protection against wood dust and other particulates should change the cartridges on their respirators when they first begin to experience difficulty breathing (i.e., resistance) while wearing their masks.
2. Based on discussions with our respirator distributor about Marion County's workplace exposure conditions, employees voluntarily wearing APRs with organic vapor cartridges should change the cartridges on their respirators at the end of each work week to ensure the continued effectiveness of the respirators.

P. Storage

1. Respirators should be stored in a clean, dry area, and in accordance with the manufacturer's recommendations. Each employee should clean and inspect their own air-purifying respirator in accordance with the provisions of this program

and should store their respirator in a plastic bag in their own locker. Each employee should have his/her name on the bag and that bag should only be used to store that employee's respirator.

2. Atmosphere supplying respirators should be stored in the storage cabinet outside of the Program Administrator's office.
3. The Program Administrator should store Marion County's supply of respirators and respirator components in their original manufacturer' s packaging in the equipment storage room.

Q. Defective Respirators

1. Respirators that are defective or have defective parts should be taken out of service immediately. If, during an inspection, an employee discovers a defect in a respirator, he/she is to bring the defect to the attention of his or her supervisor. Supervisors should give all defective respirators to the Program Administrator. The Program Administrator should decide whether to:
 - Temporarily take the respirator out of service until it can be repaired.
 - Perform a simple fix on the spot such as replacing a head strap.
 - Dispose of the respirator due to an irreparable problem or defect.
2. When a respirator is taken out of service for an extended period of time, the respirator should be tagged out of service, and the employee should be given a replacement of similar make, model, and size. All tagged out respirators should be kept in the storage cabinet inside the Program Administrator's office.

R. Training

1. The Program Administrator should provide training to respirator users and their supervisors on the contents of the Marion County Respiratory Protection Program and their responsibilities under it, and on the OSHA Respiratory Protection standard. Workers should be trained prior to using a respirator in the workplace. Supervisors should also be trained prior to using a respirator in the workplace or prior to supervising employees that should wear respirators.
2. The training course should cover the following topics:
 - the Marion County Respiratory Protection Program
 - the OSHA Respiratory Protection standard
 - respiratory hazards encountered at Marion County and their health effects
 - proper selection and use of respirators
 - limitations of respirators

- respirator donning and user seal (fit) checks
 - fit testing
 - emergency use best practice guidelines
 - maintenance and storage
 - medical signs and symptoms limiting the effective use of respirators
3. Employees should be retrained annually or as needed (e.g., if they change departments and need to use a different respirator). Employees should demonstrate their understanding of the topics covered in the training through hands-on exercises and a written test. Respirator training should be documented by the Program Administrator and the documentation should include the type, model, and size of respirator for which each employee has been trained and fit tested.

5.0 **Program Evaluation**

- A. The Program Administrator should conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluations should include regular consultations with employees who use respirators and their supervisors, site inspections, air monitoring and a review of records.
- B. Problems identified should be noted in an inspection log and addressed by the Program Administrator. These findings should be reported to Marion County management, and the report should list plans to correct deficiencies in the respirator program and target dates for the implementation of those corrections.

6.0 **Documentation and Recordkeeping**

- A. A written copy of this program and the OSHA standard is kept in the Program Administrator's office and is available to all employees who wish to review it.
- B. Also maintained in the Program Administrator's office are copies of training and fit test records. These records should be updated as new employees are trained, as existing employees receive refresher training, and as new fit tests are conducted.
- C. The Program Administrator should also maintain copies of the medical records for all employees covered under the respirator program. The completed medical questionnaire and the physician's documented findings are confidential and should remain at ***(Wherever)***. The county should only retain the physician's written recommendation regarding each employee's ability to wear a respirator.

Table 3: Hazard Assessment - (<i>DATE</i>)				
Department	Contaminants	Exposure Level (8 Hrs. TWA)*	PEL**	Controls

* Summarized from Industrial Hygiene report provided by (*whoever did this*).

** These values were obtained from a survey on average exposures as published in the American Journal of Industrial Hygiene _____.

Safety Committee

Safety Committee Organization

- A safety committee is established as a management tool to recommend improvements to workplace safety programs and to identify corrective measures needed to eliminate or control recognized safety and health hazards.
- Safety committee employer representatives should not exceed employee representatives.

Responsibilities

- The safety committee should be responsible for assisting management in communicating best practice guidelines for evaluating the effectiveness of control measures used to protect employees from safety and health hazards in the workplace.
- The safety committee should be responsible for assisting management in reviewing and updating workplace safety rules based on accident investigation findings, any inspection findings, and employee reports of unsafe conditions or work practices; and accepting and addressing anonymous complaints and suggestions from employees.
- The safety committee should be responsible for assisting management in updating the workplace safety program by evaluating employee injury and accident records, identifying trends and patterns, and formulating corrective measures to prevent recurrence.
- The safety committee should be responsible for assisting management in evaluating employee accident and illness prevention programs, and promoting safety and health awareness and co-worker participation through continuous improvements to the workplace safety program.
- Safety committee members should participate in safety training and be responsible for assisting management in monitoring workplace safety education and training to ensure that it is in place, that it is effective, and that it is documented.
- Management should provide written responses to safety committee written recommendations.

Meetings

- Safety committee meetings are held quarterly and more often if needed and each committee member should be compensated at his or her hourly wage when engaged in safety committee activities.
- Management should post the minutes of each meeting in a conspicuous place and the minutes should be available to all employees.
- All safety committee records should be maintained for not less than three calendar years.



SAFETY INSPECTION CHECKLIST

Building/location: _____ Inspector: _____ Date: _____

Fire Protection

- _____ 1. Fire Extinguisher Accessible
 - _____ a. gauge within safe range
 - _____ b. serviced with 12 months
- _____ 2. Exits marked
- _____ 3. Exits unobstructed
- _____ 4. Exits signs illuminated
- _____ 5. Flammable equipment properly stored
- _____ 6. Electrical equipment unobstructed
- _____ 7. Electrical outlets clear
- _____ 8. Electrical equipment properly used
- _____ 9. Extension cords unfrayed/unbroken
- _____ 10. Extension cords are not used for permanent wiring
- _____ 11. Alarm systems operable
- _____ 12. Other: _____

Building:

- _____ 13. Floors free from holes/splinters
- _____ 14. Floors dry, not slippery
 - _____ a. If not, warnings posted
- _____ 15. Floor/carpet unobstructed
- _____ 16. Floors level
- _____ 17. Stairs free from holes/splinters
- _____ 18. Stairs dry, not slippery
- _____ 19. Stairs unobstructed
- _____ 20. Stairs level
- _____ 21. Overhead clear
- _____ 22. Walkways unobstructed
 - _____ a. If not, warnings posted
- _____ 23. Lighting adequate
- _____ 24. Ventilation adequate
- _____ 25. Proper waste disposal
- _____ 26. Restrooms free of water hazards
- _____ 27. Corridors unobstructed
- _____ 28. Electrical fixtures grounded
- _____ 29. Building is free of mold
- _____ 30. Other: _____

Grounds

- _____ 31. Parking lot free of holes/cracks
- _____ 32. Parking lot unobstructed
- _____ 33. Sidewalks free of holes/cracks
- _____ 34. Sidewalks unobstructed
- _____ 35. Overhead clear
- _____ 36. Tree limbs stable
- _____ 37. Other: _____

Personal Protective Equipment

- _____ 38. Eye protection
- _____ 39. Hand protection
- _____ 40. Ear Protection
- _____ 41. Safety shoes
- _____ 42. Respirator protection
- _____ 43. High visibility clothing
- _____ 44. Other: _____

Machinery/Equipment

- _____ 45. Safety guards in place
- _____ 46. Wiring defect free
- _____ 47. Belts/hoses defect free
- _____ 48. Chains defect
- _____ 49. Cables/ropes defect free
- _____ 50. Adequate maintenance
- _____ 51. Proper usage
- _____ 52. Proper storage
- _____ 53. Proper transport
- _____ 54. Other: _____

Material/Tools

- _____ 55. Safety guards in place
- _____ 56. Wiring defect free
- _____ 57. Adequate maintenance
- _____ 58. Proper usage
- _____ 59. Proper storage
- _____ 60. Other: _____

Personal Practices

- _____ 61. Proper lifting
- _____ 62. Proper carrying
- _____ 63. Food/drink safely positioned
- _____ 64. Appropriate equipment used
- _____ 65. Appropriate procedures used
- _____ 66. Proper clothing worn
- _____ 67. Proper equipment worn
- _____ 68. First-aid supplies available
- _____ 69. Emergency phone numbers posted.
- _____ 70. Other: _____

S=satisfactory, no hazard found, N=not applicable to this building, U=unsatisfactory, hazard exists
Details, Comments, and Corrective Action (reference item number)

