Commercial and

Industrial Machinery and Equipment

NAICS Code

811310 Commercial and Industrial Machinery and Equipment

(Except Automotive and Electronic Repair and Maintenance)

Section 9

SAFETY RULES, POLICIES, AND PROCEDURES

The safety rules contained on these pages have been prepared to protect you in your daily work. Employees are to follow these rules, review them often and use good common sense in conducting assigned duties.

ALL EMPLOYEES

Housekeeping 4

Lifting Procedures 4

Ladders and Step Ladder 4

Hazardous Materials 5

Personal Protective Equipment 5

OFFICE PERSONNEL

Office Safety 5

FORKLIFT and CRANE/HOIST OPERATORS

General Repair Shop Safety 6

General Hand Tool Safety 6

Forklifts 6

Crane/Hoist Safety 9

TRUCK and OTHER VEHICLE DRIVERS

Driving Safety 9

CLEANING and SANITATION PERSONNEL

Housekeeping 10

Personal Protective Equipment 10

General Cleaning Area Safety 10

General Hand Tool Safety 10

Chemical and Cleaning Solvent 11

General Parts Cleaning 11

High Pressure Water Cleaning 11

Steam Cleaning Operations 11

General Sanding Operations 12

Sand Blasting Operations 12

Use of Compressed Gas Cylinders 12

Tanks and Other Confined Spaces 13

Confined Space Entry Procedure 13

DIAGNOSTIC and DISASSEMBLE PERSONNEL

General Rules 13

Housekeeping 14

Solvents, Cutting Fluids, and Other Chemicals 14

Hand Tool Safety 14

Electrical Powered Tools 15

Hydraulic/Pneumatic Tools 16

Dip Tank Operations 17

REPAIR PERSONNEL (Reassembly)

General Rules 17

Housekeeping 17

General Machine Safety 17

Hand Tool Safety 18

Electrical Powered Tools 19

Hydraulic/Pneumatic Tools 19

Jacks 20

Grinders 20

General Power Saws Safety 20

Riveting and Bolting 20

Chemical Safety 20

Personal Protective Equipment 21

Spray Coating/Spray Painting 21

Hot Glue Gun 21

MAINTENANCE PERSONNEL

Housekeeping 21

Machine/Equipment Servicing 22

Pneumatic Tools 22

Hand Tool Safety 22

Electrical Powered Tools 24

Welding/Cutting/Brazing 25

Compressed Gas Cylinders 25

Chemical Handling Safety 26

WAREHOUSE PERSONNEL

General Rules 26

Housekeeping 26

Personal Protective Equipment 27

Hazardous Materials 27

Ladders and Step Ladders 27

Compressed Gas Cylinders 27

Lifting Equipment 28

Hand Truck Operations 28

WAREHOUSE PERSONNEL

Pallet Jack Use 28

Knives/Sharp Instruments 29

WELDING PERSONNEL

Portable Welding Equipment 29

Compressed Gas Cylinders 29

Welding/Cutting/Brazing 30

Personal Protective Equipment 31

Hand Tool Safety 31

ALL EMPLOYEES

Housekeeping

1. Do not place material such as boxes or trash in walkways and passageways.

2. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.

3. Do not store or leave items on stairways.

4. Straighten or remove rugs and mats that do not lie flat on the floor.

5. Keep floors clear of items such as paper clips, pencils, tacks, or staples.

6. Clean up spills immediately by using a paper towel, rag, or mop and bucket.

7. Clean up any broken glass using a dustpan and broom. Do not pick up broken glass with your bare hands.

8. Use caution signs/cones to barricade slippery areas such as freshly mopped floors.

9. Mop up standing water upon discovery.

Lifting Procedures

General

1. Evaluate the weight of the load before lifting by pushing the load along its resting surface.

2. 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.

3. Never lift anything if your hands are greasy or wet.

4. Wear protective gloves when lifting objects with sharp corners or jagged edges.

When lifting

1. Face the load.

2. Position your feet 6"-12" apart with one foot slightly in front of the other.

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. Hold objects as close to your body as possible.

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

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

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

10. 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.

Ladders and Step Ladders

General Rules

1. Do not use ladders that have loose rungs, cracked or split side rails, missing rubber foot pads, or other visible damage.

2. Keep ladder rungs clean of grease. Remove buildup of material such as dirt or mud.

3. When performing work from a ladder, face the ladder and do not lean backward or side­ways from the ladder.

4. Do not stand on the top two rungs of any ladder.

5. Do not stand on a ladder that wobbles, or that leans to the left or right of center.

6. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.

7. Allow only one person on the ladder at a time.

Climbing a Ladder

1. Face the ladder when climbing up or down it.

2. Do not carry items in your hands while climbing up or down a ladder.

3. Maintain a three-point contact by always keeping both hands and one foot or both feet and one hand on the ladder when climbing up or down.

Hazardous Materials

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

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

Personal Protective Equipment

1. Wear your earplugs or earmuffs in areas posted "Hearing Protection Required"

2. Wear safety glasses or face shields in areas posted "Eye wear Protection Required"

3. Wear hard hats or approved head protection in areas that are posted "Hard Hat Protection Required."

OFFICE PERSONNEL

Office Safety

General

1. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

2. Do not kick objects out of your pathway; pick them up or push them out of the way.

3. Do not throw matches, cigarettes, or other smoking materials into trash baskets.

4. Keep floors clear of items such as paper clips, pencils, tacks, or staples.

5. Do not block your view by carrying large or bulky items; use a dolly or hand truck or get assistance from a fellow employee.

6. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the points down in a container.

7. Carry pencils, scissors, and other sharp objects with the points down.

8. Use a ladder or step stool to retrieve or store items that are located above your head.

9. Do not store or leave items on stairways or walkways.

10. Do not run on stairs or take more than one step at a time.

11. Do not jump from ramps, platforms, ladders, or step stools.

12. Keep doors in hallways fully open or fully closed.

13. Use handrails when ascending or descending stairs or ramps.

14. Obey all posted safety and danger signs.

Furniture Use

1. Open one file cabinet drawer at a time.

2. Put heavy files in the bottom drawers of file cabinets.

3. Close drawers and doors immediately after use.

4. Use the handle when closing doors, drawers, and files.

5. Do not tilt the chair you are sitting in on its back two legs.

6. Do not stand on furniture to reach high places.

Equipment Use

1. Keep the paper cutter handle in the closed/locked position when it is not in use.

2. Do not use paper-cutting devices if the finger guard is missing.

3. Use a staple remover, not your fingers, for removing staples.

4. Do not use extension or power cords that have the ground prong removed or broken off.

5. Do not use frayed, cut, or cracked electrical cords.

6. Use a cord cover or tape the cord down when running electrical or other cords across aisles, between desks or across entrances/exits.

7. Do not connect multiple electrical devices into a single outlet.

8. Turn off and unplug office machines before adjusting, lubricating, or cleaning them.

9. Do not use fans that have excessive vibration, frayed cords, or missing guards.

10. Do not place floor type fans in walkways, aisles, or doorways.

FORKLIFT and CRANE/HOIST OPERATORS

General Repair Shop Safety

1. Read and obey safety warnings posted on or near any machinery.

2. Long hair must be contained under a hat or hair net, regardless of gender.

General Hand Tool Safety

1. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.

2. Do not use impact tools, such as hammers, that have mushroomed heads.

3. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.

4. Do not carry sharp or pointed hand tools, such as screwdrivers, in your pocket unless the tool or pocket is sheathed.

5. Do not use "cheaters" on load binders or "boomers."

Forklifts

Pre-Use Inspection

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

1. The mast has broken or cracked weld-points.

2. The roller tracks are not greased or the chains are not free to travel.

3. Forks are unequally spaced or cracks exist along the blade or at the heels.

4. Hydraulic fluid levels are low.

5. Hydraulic line and fitting have excessive wear or are crimped.

6. Fluid is leaking from the lift or the tilt cylinders.

7. The hardware on the cylinders is loose.

8. Tires are excessively worn, split, or have missing tire material.

9. Air filled tires are not filled to the operating pressure indicated on the tire.

10. Batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections, or clogged vent caps.

Starting the Forklift

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

Picking up a Load

1. "Square up" on the center of the load and approach it straight on with the forks in the travel position.

2. Stop when the tips of your forks are about a foot from the load.

3. Level the forks and slowly drive forward until the load is resting against the backrest of the mast.

4. Lift the load high enough to clear whatever is under it.

5. Back up about one foot, then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about one foot from desired location.

2. Level the forks and drive to the loading spot.

3. Slowly lower the load to the floor.

4. Tilt the forks slightly forward so that you do not hook the load.

5. When the path behind you is clear of obstructions, back straight out until the forks have cleared the pallet.

Stacking One Load on Top of Another

1. Stop about one foot away from the loading area and lift the mast high enough to clear the top of the stack.

2. Slowly move forward until the load is squarely over the top of the stack.

3. Level the forks and lower the mast until the forks no longer support the load.

4. Look over both shoulders for obstructions and back straight out if the path is clear.

Forklift Safety Rules

1. Do not exceed the lift capacity of the forklift. Read the lift capacity plate on the forklift if you are unsure.

2. Follow the manufacturer's guidelines concerning changes in the lift capacity before adding an attachment to a forklift.

3. Lift the load an inch or two to evaluate for stability: If the rear wheels are not in firm contact with the floor, take a lighter load or use a forklift with a higher lift capacity.

4. Do not raise or lower a load while you are in route. Wait until you are in the loading area and have stopped before raising or lowering the load.

5. After picking up a load, adjust the forks so that the load is tilted slightly backward for added stability.

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

7. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as wet floors.

8. Do not drive over objects in your pathway.

9. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.

10. Steer wide when making turns.

11. Do not drive up to anyone standing or working in front of a fixed object such as a wall.

12. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.

13. Obey all traffic rules and signs.

14. Sound horn when approaching blind corners, doorways, or aisles to alert other operators and pedestrians.

15. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.

16. Stay a minimum distance of three truck lengths from other operating mobile equipment.

17. Drive in reverse and use a signal person when the load blocks your vision.

18. Look in the direction that you are driving; proceed when you have a clear path.

19. Do not use bare forks as a man-lift platform.

20. Do not drive the forklift while people are on the attached man-lift platform.

21. Drive loaded forklifts forward up ramps.

22. Raise the forks an additional two inches to avoid hitting or scraping the ramp surface as you approach the ramp.

23. Drive loaded forklifts in reverse when driving down a ramp.

24. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.

25. Do not attempt to turn around on a ramp.

26. Do not use the "Reverse" to brake.

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

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. 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.

Crane/Hoist Safety

1. Do not use load hooks or chains that are cracked, bent, elongated, or broken.

2. Do not exceed the rated load capacity of the crane as specified by the manufacturer.

3. Passengers are not permitted to ride inside the operator's cab of a truck crane.

4. Keep crane windows clean. Do not use a crane if its windows are broken.

5. Do not exceed posted weight limits on hoists.

6. Fully extend outriggers before attempting a lift.

7. Stay outside the barricades of the posted swing radius.

8. Do not perform any crane retrofits or modifications without the manufacturer's approval.

9. Do not leave the crane unattended with a hoisted load.

10. Do not hoist loads over people.

11. Wear the prescribed personal protective equipment such as hard hat, goggles, and gloves when operating a hoist.

12. Only follow the signals of the person designated to give you signals when operating a crane.

TRUCK and OTHER VEHICLE DRIVERS (Tow Trucks, Low Boys, Flat Beds, etc.)

Driving Safety

Fueling Vehicles

1. Turn the vehicle off before fueling it.

2. Do not smoke while fueling a vehicle.

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

Driving Rules

1. Shut your door and fasten your seat belt before moving the vehicle.

2. Always obey all traffic laws and signals.

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.

Heavy Equipment

1. Wear your hard hat, hearing protection and safety goggles while operating heavy equipment.

2. All operators must wear the seat belt when operating scrapers, loaders, dozers, tractors, and graders.

3. No passengers are permitted on heavy equipment.

4. Keep the windows and windshield of heavy equipment clean.

5. Turn the engine off before leaving heavy equipment unattended.

6. Do not jump off, or onto any heavy equipment.

7. Before leaving a bulldozer or a loader unattended, land the blade on the ground, set the brakes, turn the power off and shift the gear lever into neutral.

Trucks

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

2. Turn on head lights 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 the chemical goggles when using, applying, or managing chemical liquids or powders from containers labeled "Caustic" or "Corrosive".

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

4. Wear your work gloves when handling rough, sharp-edged, or abrasive material such as chains, slings or other equipment.

General Cleaning Area Safety

1. Read and obey safety warnings posted on or near any machinery.

2. Long hair must be contained under a hat or hair net, regardless of gender.

General Hand Tool Safety

1. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.

2. Do not use impact tools, such as hammers, that have mushroomed heads.

3. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.

4. Do not carry sharp or pointed hand tools, such as screwdrivers, in your pocket unless the tool or pocket is sheathed.

5. Do not use "cheaters" on load binders or "boomers."

Chemicals and Cleaning Solvents

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

2. Always wash your hands with soap and water after using cleaning solvents or other chemi­cals.

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. Only dispense a liquid labeled "Flammable" from its bulk container located in areas posted "Flammable Liquid Storage."

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

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

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.

General Sanding Operations

1. Wear gloves, aprons, dust masks, safety glasses 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. Wash hands and exposed skin surfaces of arms after leaving the sanding area

Sand Blasting Operations

1. Wear gloves, aprons, a helmet with shoulder harness, safety glasses and hearing protection when sand blasting.

2. Do not eat, drink, or use tobacco products while using the sand blaster.

3. Do not point the sand blaster at bystanders or at yourself.

4. Do not use air compressors if their belt guards are missing. Replace the belt guards before using the compressor.

5. Turn the power switch of the sand blaster to the "Off" position and let it come to a complete stop before leaving it unattended.

6. Disconnect the sand blaster from the air line before making any adjustments or repairs to the tool.

Use of Compressed Gas Cylinders

1. Do not use dented, cracked, or other visibly 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 the regulators and replacing the valve protection caps.

4. Close the cylinder valve when your 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 yourself, equipment, or your work area.

10. Do not remove the valve wrench from acetylene cylinders while the cylinder is being used.

11. Open cylinder valves slowly. Open the valves fully when the compressed gas cylinder is being used, to eliminate leakage around the cylinder valve stem.

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.

Confined Space Entry Procedure

1. Valve off and disconnect all hoses, lines, and self-cleaning devices on the tank.

2. 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.

3. Open all maintenance holes of the tank for ventilation.

4. 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 maintenance holes at the top of the tank.

5. Use a Combustible Gas Analyzer to evaluate 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%.

6. Do not enter any area labeled "confined space" without a confined space entry permit.

7. Use survey equipment such as a "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 that 23.5%, do not enter the confined space.

8. Turn "off" disconnect, or lock and tag all systems that affect or make operational the con­fined space prior to entry.

9. 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.

10. Use mechanical forced air ventilation when open flames or torches are used in a confined space.

11. Do not leave tools and/or materials around the confined space opening.

12. Do not throw materials into or out of maintenance holes. Place materials in a receptacle and hoist them in and out by means of a rope.

13. Use a ladder when entering or leaving an underground vault.

14. 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 will 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, Cutting Fluids, and Other Chemicals

1. Follow the instructions on the label and in the corresponding Safety Data Sheet (SDS) 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 eye wear, when using chemicals labeled "Flammable", "Corrosive", "Caustic" or "Poisonous".

3. Do not use protective clothing or equipment that has split seams, pin holes, cuts, tears, or other signs of visible damage.

4. Always wash your hands with soap and water after using cutting fluids, solvents, and other chemicals.

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. Only dispense a 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. Tag worn, damaged or defective tools "Out of Service" and do not use them.

2. Do not use a tool if its handle has splinters, burrs, cracks, or splits, or if the head of the tool is loose.

3. Do not use impact tools such as hammers, chisels, punches, or steel stakes that have mushroomed heads.

4. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.

5. When using knives, shears, or other cutting tools, cut in a direction away from your body.

6. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, chisels, or files in your pocket unless the tool or pocket is sheathed.

7. Do not perform "makeshift" repairs to tools.

8. Do not carry tools in your hand when climbing. Carry tools in tool belts or hoist the tools to the work area using a hand line.

9. Do not throw tools from one location to another or from one employee to another.

Chisels

1. Keep the cutting edge of the chisel sharp.

2. Hold a chisel with a tool holder when possible.

3. Clamp a small work piece in a vise and chip towards the stationary jaw when working with a chisel.

Hammers

1. Do not strike objects with the cheek of the hammer.

2. Do not strike a hardened steel surface, such as a cold chisel, with a claw hammer.

3. Do not use a hammer if your hands are oily, greasy, or wet.

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

5. Use only a sledge type hammer on a striking face wrench.

Wrenches

1. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.

2. Do not slip a pipe over a single head wrench handle for increased leverage.

3. Do not use a shim to make a wrench fit.

4. Use a split box wrench on flare nuts

5. 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 path of drills, saws, and grinders.

3. Do not use cords that have splices, exposed wires or cracked or frayed ends.

4. Do not carry plugged in equipment or tools with your finger on the switch.

5. Do not carry equipment or tools by the cord.

6. Turn the tool off before plugging or unplugging it.

7. Do not leave tools that are "On" unattended.

8. Do not manage or operate electrical tools when your hands are wet or when you are stand­ing on a wet surface.

9. Do not operate spark-inducing tools such as drills or saws near containers labeled "Flammable" or in an explosive atmosphere.

10. Do not use extension cords or other grounded three pronged power cords that have the ground prong removed or broken off.

11. Do not use an adapter that eliminates the ground such as a cheater plug.

12. Do not connect multiple electrical tools into a single outlet.

13. Do not drive over, drag, step on or place objects on a cord.

14. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.

15. Do not operate power hand tools or portable appliances that have a frayed, worn, cut, improperly spliced or damaged power cord.

16. Do not operate power hand tools or portable appliances if the ground pin from the three pronged power plug is missing or has been removed.

17. Do not operate power hand tools or portable appliances with a two-pronged adapter or a two conductor extension cord.

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

Drill Safety

1. Do not use dull, cracked, or bent drill bits.

2. Insert the work piece into the table grooves before starting the drilling process.

3. Use brushes or vacuum machinery to remove metal chips, shavings, and other debris from the drill table. Do not use your bare hands.

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 that it is no more than 1/8 inch from the grinding wheel.

Hydraulic and 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 air line 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 manufactures specification for lifting and securing equipment with hoist, fork truck, or other lifting aids.

3. Select the tools that will 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 dustpan.

General Machine Safety

1. Replace the guards before starting machines and after adjusting or repairs.

2. Do not remove, alter, or bypass any safety guards or devices when operating mechanical equipment such as mechanical power presses, press brakes, metal working lathes, cutting, notching, or when bending and forming machinery.

3. Do not wear loose clothing or jewelry in the machine shop.

4. Long hair must 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, disconnect the power before clearing the jam.

Hand Tool Safety

1. Tag worn, damaged or defective tools "Out of Service" and do not use them.

2. Do not use a tool if its handle has splinters, burrs, cracks, or splits, or if the head of the tool is loose.

3. Do not use impact tools such as hammers, chisels, punches, or steel stakes that have mushroomed heads.

4. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.

5. When using knives, shears, or other cutting tools, cut in a direction away from your body.

6. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, chisels, or files in your pocket unless the tool or pocket is sheathed.

7. Do not perform "makeshift" repairs to tools.

8. Do not carry tools in your hand when climbing. Carry tools in tool belts or hoist the tools to the work area using a hand line.

9. Do not throw tools from one location to another or from one employee to another.

Chisels

1. Keep the cutting edge of the chisel sharp.

2. Hold a chisel with a tool holder if possible.

3. Clamp a small work piece in a vise and chip towards the stationary jaw when working with a chisel.

Hammers

1. Do not strike objects with the cheek of the hammer.

2. Do not strike a hardened steel surface, such as a cold chisel, with a claw hammer.

3. Do not use a hammer if your hands are oily, greasy, or wet.

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

5. Use only a sledge type hammer on a striking face wrench.

Wrenches

1. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.

2. Do not slip a pipe over a single head wrench handle for increased leverage.

3. Do not use a shim to make a wrench fit.

4. Use a split box wrench on flare nuts.

5. 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.

Electrically Powered Tools

1. Do not use power equipment or tools on which you have not been trained.

2. Keep power cords away from path of drills, saws, or grinders.

3. Do not use cords that have splices, exposed wires or cracked or frayed ends.

4. Do not carry plugged in equipment or tools with your finger on the switch.

5. Do not carry equipment or tools by the cord.

6. Turn the tool off before plugging or unplugging it.

7. Do not leave tools that are "On" unattended.

8. Do not manage or operate electrical tools when your hands are wet or when you are stand­ing on a wet surface.

9. Do not operate spark-inducing tools such as drills or saws near containers labeled "Flammable" or in an explosive atmosphere.

10. Do not use extension cords or other grounded three-pronged power cords that have the ground prong removed or broken off.

11. Do not use an adapter that eliminates the ground such as a cheater plug.

12. Do not connect multiple electrical tools into a single outlet.

13. Do not drive over, drag, step on or place objects on a cord.

14. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.

15. Do not operate power hand tools or portable appliances that have a frayed, worn, cut, improperly spliced or damaged power cord.

16. Do not operate power hand tools or portable appliances if the ground pin from the three-pronged power plug is missing or has been removed.

17. Do not operate power hand tools or portable appliances with a two-pronged adapter or a two-conductor extension cord.

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

Hydraulic and 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 the "Off" position and let it come to a complete stop before leaving it unattended.

6. Disconnect the tool from the air line 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 and equipment out of the way 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 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 that it is no more than 1/8 inch from the grinding wheel.

General Power Saws Safety

1. Wear the prescribed personal protective equipment such as goggles, gloves, and hearing protection when operating the power saw.

2. Turn the power switch of the saw to "Off" before making measurements, adjustments, or repairs.

3. Keep your 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 the power switch of the saw to "Off" before pulling out the incomplete cut.

6. Do not alter the anti-kickback device or blade guard.

Riveting and Bolting

1. Do not use your hands to guide a bit into place when riveting or bolting metal.

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 carry nuts, bolts, rivets or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.

Chemical Safety

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

2. Do not use protective clothing or equipment that has split seams, pin holes, cuts, tears, or other signs of visible damage.

3. Always wash your hands with soap and water after using chemicals.

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. Only dispense a liquid labeled "Flammable" from its bulk container located in areas posted "Flammable Liquid Storage."

6. 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. Safety goggles must be worn while reaming, drilling, grinding, spray painting, cutting metal, etc.

2. Wear chemical goggles when using, applying, or managing chemical liquids from containers labeled "Caustic" or "Corrosive".

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

4. Wear high-top, heavy leather, steel-toed work boots with nonskid soles in the machine/equipment area.

Spray Coating and Spray Painting

General Rules

1. Powder coating and spray paint operators must use respirators provided by their supervisor for their assigned duties.

2. Wear goggles, gloves, face shields, long sleeve shirts and long pants when powder coating or spray painting is being performed.

Respirators

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

2. Do not wear contact lenses when wearing a respirator.

3. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when the work is completed.

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

Painting Safety

1. Always wash your hands with soap and water after using paints or 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 coating or spray painting is being performed.

5. Close the lids of containers of paint and other toxic solutions tightly after each use.

Hot Glue Gun

1. Point a hot glue gun only at material being labeled. Do not point a hot glue gun at a co-worker or yourself.

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/Equipment Servicing

General

1. Replace the guards before starting machines, after adjusting or repairs.

2. Do not wear loose clothing or jewelry when repairing machinery.

3. Long hair must be contained under a hat or hair net, regardless of gender.

4. Read and obey safety warnings posted on or near any machinery.

5. 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.

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.

Pneumatic Tools

1. Do not point a compressed air hose at bystanders or use it to clean your clothing.

2. Do not use compressors if their belt guards are missing. Replace belt guards before use.

3. Turn the tool "off" and let it come to a complete stop before leaving it unattended.

4. Disconnect the tool from the air line before making any adjustments or repairs to the tool.

Hand Tool Safety

1. Use tied off containers to keep tools from falling off scaffolds and other elevated work platforms.

2. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.

3. Do not use impact tools, such as hammers, which have mushroomed heads.

4. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.

5. When using knives, shears, or other cutting tools, cut in a direction away from your body.

6. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, chisels, or files in your pocket unless the tool or pocket is sheathed.

7. Do not perform "makeshift" repairs to tools.

8. Do not carry tools in your hand when climbing. Carry tools in tool belts or hoist the tools to the work area with a hand line.

9. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.

10. 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, or screwdriver.

2. When using a file or a rasp, grasp the handle in one hand and the toe of the file in the other.

Hammers

1. Do not strike nails or other objects with the cheek of the hammer.

2. Do not use a hammer if your hands are oily, greasy, or wet.

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

4. Use only a sledge type hammer on a striking face wrench.

Screwdrivers

1. Always match the size and type of screwdriver blade to fit the head of the screw.

2. Do not hold the work piece against your body while using a screwdriver.

3. Do not put your fingers near the blade of the screwdriver when tightening a screw.

4. Use an awl, drill, or a nail to make a starting hole for screws.

5. Do not force a screwdriver by using a hammer or pliers on it.

6. Use a screwdriver that has an insulated handle for electrical work.

7. Do not use a screwdriver if your hands are wet, oily, or greasy.

8. Do not use a screwdriver to evaluate the charge of a battery.

Wrenches

1. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.

2. Do not slip a pipe over a single head wrench handle for increased leverage.

3. Do not use a shim to make a wrench fit.

4. Size the adjustable wrench to fit the nut before turning.

5. Use a split box wrench on flare nuts.

6. Do not use a wrench with broken or battered points.

7. 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 attempt to force pliers by using a hammer on them.

3. Do not slip a pipe over the handles of pliers to increase leverage.

4. Use pliers with an insulated handle for electrical work.

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. Position the work piece in the vise so that the entire face of the jaw supports the work piece.

2. Do not use a vise that has worn or broken jaw inserts or has cracks or fractures in the body of the vise.

3. 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 safety glasses or safety goggles when using snips to cut materials.

2. Wear work gloves when cutting materials with snips.

Toolboxes/Chests/Cabinets

1. Tape over or file off sharp edges on toolboxes, chests, or cabinets.

2. Do not stand on toolboxes, chests, or cabinets to gain extra height.

3. Lock the wheels on large toolboxes, chests, or cabinets to prevent them from rolling.

4. Push large chests, cabinets, and toolboxes; do not pull.

5. Do not use a toolbox or chest as a workbench.

6. Do not move a toolbox, chest, or cabinet if it has loose tools or parts on the top.

Electrically Powered Tools

1. Do not use power equipment or tools on which you have not been trained.

2. Keep power cords away from path of drills, saws, and grinders.

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. Turn the tool off before plugging or unplugging it.

6. Do not leave tools that are "On" unattended.

7. Do not manage or operate electrical tools when your hands are wet or when you are stand­ing on wet surfaces.

8. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled "Flammable" or in an explosive atmosphere.

9. Turn off electrical tools and disconnect the power source from the outlet before attempting repairs or service work. Tag the tool "Out of Service."

10. Do not use extension cords or other grounded three-pronged power cords that have the ground prong removed or broken off.

11. Do not use an adapter that eliminates the ground such as a cheater plug.

12. Do not connect multiple electrical tools into a single outlet.

13. Do not use a power hand tool to cut wet or water-soaked materials or to repair pipe leaks.

14. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.

15. Do not operate power hand tools or portable appliances that have a frayed, worn, cut, improperly spliced or damaged power cord.

16. Do not operate power hand tools or portable appliances if the ground pin from the three-pronged power plug is missing or has been removed.

17. Do not operate a power hand tool or portable appliance with a two-pronged adapter or a two-conductor extension cord.

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

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.

2. Do not leave paper, such as blueprints, oily rags, or other combustible materials in the welding, cutting or brazing area.

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

4. Use the red hose for gas fuel and the green hose for oxygen.

5. Do not use worn, burned, or cracked hoses.

6. Do not use oil, grease, or other lubricants on the regulator.

7. "Blow Out" hoses before attaching the torch.

8. Ignite torches with friction lighters only. Do not use a cigarette lighter.

9. Do not change electrodes using your bare hands; wear dry rubber gloves.

10. Bleed oxygen and fuel lines at the end of the work shift.

11. Do not wear contact lenses when welding.

12. When welding, wear a welding helmet with filter plates and lenses, welding gloves, a long sleeve shirt, long pants, and an apron.

13. Wear clothing made of cotton, wool, or non-synthetic fibers. Wear long sleeve shirts, long pants, boots, and gloves.

14. Use the welding screen to shield other employees from flying slag and intense light.

15. Before welding, place the floor fan behind you to keep welding fumes away from your face.

16. Do not use a torch on any container that is labeled "Flammable" or "Combustible."

Compressed Gas Cylinders

1. Do not manage 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 meet chemicals labeled "Corrosive."

6. Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

7. Do not store oxygen cylinders near fuel gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.

8. 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.

Chemical Handling Safety

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

2. Always wash your hands with soap and water after using solvents or other chemicals.

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. Only dispense a liquid labeled "Flammable" from its bulk container located in areas posted "Flammable Liquid Storage."

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

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

WAREHOUSE PERSONNEL (Parts Picker/Parts Clerk, Delivery/Receiving)

General Rules

1. Use long handled snips when cutting strapping bands away from a shipping container.

2. Stand to the side of the strapping band when cutting it.

3. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.

4. Do not run-on stairs or take more than one step of a staircase at a time.

5. Do not jump from elevated places such as truck beds, platforms, or ladders.

6. Do not leave pallet jack unattended with the load suspended.

7. Do not use pallets or skids that are cracked, split, or have other visible damage.

8. Do not exceed the rated load capacity noted on the manufacturer's label on the cart.

9. Ask a spotter to help guide carts around corners and through narrow aisles.

10. Do not stand on a cart or float or use it as a work platform.

11. Obey all safety and danger signs posted in the workplace.

12. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.

13. Store case cutters, exact knives, or other tools with cutting edges in sheaths when they are not in use.

14. When using tape dispenser, direct the cutting edge away from your body.

15. Slide all container packages or use hand trucks, pallet jack or other lifting aids.

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 the chemical goggles when using, applying, or managing chemical liquids or powders from containers labeled "Caustic" or "Corrosive".

3. Wear your safety glasses when cutting strapping bands.

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 work gloves when cutting materials with snips.

6. Wear work gloves when managing rough, sharp-edged, or abrasive material such as chains, cables, ropes, or slings.

Hazardous Materials

Handling Chemicals

1. Do not manage or load any containers of chemicals if their containers are cracked or leaking.

2. Do not smoke while managing chemicals labeled "Flammable."

3. Only dispense a liquid labeled "Flammable" from its bulk container located in areas posted "Flammable Liquid Storage."

Storing Chemicals

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

2. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters, forges and sparking tools.

Ladders and Step Ladders

1. Do not use a ladder as a horizontal platform.

2. When using a ladder, extend the top of the ladder at least 3 feet above the edge of the landing.

3. Do not place ladders on barrels, boxes, buckets, or other unstable bases.

Compressed Gas Cylinders

Storage and Handling

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

2. Store all compressed gas cylinders in the upright position.

3. Place valve protection caps on compressed gas cylinders that are in storage or are not being used.

4. Do not lift compressed gas cylinders by the valve protection cap.

5. Do not store compressed gas cylinders in areas where they can meet chemicals labeled "Corrosive."

6. Hoist compressed gas cylinders on the cradle, sling board, pallet, or compressed gas cylinder basket.

7. Do not place compressed gas 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 Operations

1. Tip the load slightly forward so that the tongue of the hand truck goes under the load.

2. Push the tongue of the hand truck all the way under the load that is to be moved.

3. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.

4. When loading hand trucks, keep your feet clear of the wheels.

5. Push the load so that the axle and not the handles will carry the weight.

6. Place the load so that it will not slip, shift, or fall. Use the straps, if they are provided, to secure the load.

7. If your view is obstructed, ask a spotter to assist in guiding the load.

8. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.

9. Do not walk backward with the hand truck, unless going up stairs or ramps.

10. When going down an incline, keep the hand truck in front of you so that it can be always con­trolled.

11. Move hand trucks at a walking pace.

12. Store hand trucks with the tongue under a pallet, shelf, or table.

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

Pallet Jack Use

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 ride on pallet jacks.

4. Start and stop the pallet jack gradually to prevent the load from slipping.

5. Pull manual pallet jacks; push when going down an incline or passing close to walls or obstacles.

6. If your view is obstructed, ask a spotter to assist in guiding the load.

7. Stop the pallet jack if anyone gets in your way.

8. Never place your feet under the pallet jack.

9. Keep your feet and other body parts clear of 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 use.

4. Do not use knives with dull blades.

5. Carry knives with their tips pointed towards the floor.

6. Do not attempt to catch a falling knife.

7. When opening cartons use safety box cutters. Do not cut with the blade extended beyond the guard.

8. Do not use knives with broken or loose handles.

9. Do not use knives as screwdrivers, pry bars, or can openers.

10. Do not leave knives in sinks full of water.

11. Do not pick up knives by their blades.

12. Do not carry knives, scissors or other sharp tools in pockets or aprons unless they are first placed in their sheath or holder.

13. 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 with two hands and hold the bag away from your body.

WELDING PERSONNEL

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliances while 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 that 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 manage oxygen cylinders if your gloves are greasy or oily.

2. Store all compressed gas cylinders in the upright position.

3. Place valve protection caps on compressed gas cylinders that are in storage or are not being used.

4. Do not lift compressed gas cylinders by the valve protection cap.

5. Do not store compressed gas cylinders in areas where they can meet chemicals labeled "Corrosive".

6. Hoist compressed gas cylinders on the cradle, sling board, pallet, or compressed gas cylinder basket.

7. Do not place compressed gas cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

Use of Compressed Gas Cylinders

1. Do not use dented, cracked, or other visibly 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 the 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 yourself, equipment, or your work area.

10. Do not remove the valve wrench from acetylene cylinders while the cylinder is being used.

11. Open cylinder valves slowly. Open the valves fully when the compressed gas cylinder is being used, to eliminate leakage around the cylinder valve stem.

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. Do not wear contact lenses when you are welding.

10. When welding, wear welding gloves, a long sleeve shirt, long pants, a welding apron, and the welding helmet that has filter plates and lenses.

11. Do not change electrodes using your bare hands; use the dry rubber gloves.

12. "Bleed" oxygen and fuel lines at the end of the work shift.

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 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 back 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.

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. Wear the face shield over your goggles or safety glasses during open furnace, hot dipping, metal plating 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.

Hand Tool Safety

1. Carry all sharp tools in a sheath or holster.

2. Tag worn, damaged or defective tools "Out of Service" and do not use them.

3. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.

4. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.

5. When using knives, shears, or other cutting tools, cut in a direction away from your body.

6. Do not perform "makeshift" repairs to tools.

7. Do not throw tools from one location to another, from one employee to another, or from elevated platforms.

8. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

9. Do not use impact tools such as hammers, chisels, punches, or steel stakes that have mush­roomed heads.

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. Do not use pliers that are cracked, broken, or sprung.

4. 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. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.

2. Do not slip a pipe over a single head wrench handle for increased leverage.

3. Discard any wrench that has spread, nicked, or battered jaws or if the handle is bent.

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

Hammers

1. Do not use a hammer if your hands are oily, greasy, or wet.

2. Do not strike nails or other objects with the "cheek" of the hammer.

3. Do not strike one hammer against another hammer.

Toolboxes/Chests/Cabinets

1. Do not use a toolbox or chest as a workbench.

2. Use the handle when opening and closing a drawer or door of a toolbox, chest, or cabinet.

3. Do not open more than one drawer of a toolbox at a time.

4. Do not stand on toolboxes, chests, or cabinets to gain extra height.

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.

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. Adjust the tongue guard so that it is no more than 1/4 inch from the grinding wheel.

4. 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 workpiece by using vice grip pliers, clamps, or a jig.

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