



ALABAMA MUNICIPAL INSURANCE CORPORATION MUNICIPAL WORKERS COMPENSATION FUND, INC.



Loss Control Division

MACHINISTS-MECHANICS

Hazardous Chemicals

1. Read and follow the safety instructions on the chemical container label and on the corresponding Material Safety Data Sheets (MSDS) before using, handling, or applying the chemicals in your workplace.
2. Wear neoprene gloves and protective eyewear, when using chemicals labeled "Flammable", "Corrosive", "Caustic" or "Poisonous".
3. Always use chemical goggles and a face shield before handling chemicals labeled "Corrosive" or "Caustic".
4. Do not use protective clothing or equipment that has split seams, pin holes, 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.

Flammable Liquid Storage

1. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
2. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage".

Pouring and Dispensing

1. Only dispense a liquid labeled "Flammable" from its bulk container located in areas posted "Flammable Liquid Storage".
2. Before pouring, dispensing or transferring any liquid from a bulk container labeled "Flammable", observe the following safety procedure:
 - Only use red color-coded, plastic or metal containers for transferring the liquid.
 - Electrically ground and bond the containers as follows:

(1) 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.

(2) 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.

(3) You are now ready to dispense the liquid from the bulk container into the opened receiving container. Upon completion, replace the lid on the receiving container and remove the bonding wire.

Battery Handling and Storage

1. Do not lay tools or metal parts on top of a battery.
2. Turn battery chargers to the "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.

Housekeeping

1. Keep the service bay floors clear of parts and tools.
2. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
3. Clean the bay floors after each vehicle maintenance job and at the end of the work shift.
4. Dispose of oily rags in the container labeled "Oily Rags Only".
5. Dispose of trash only in trash receptacles.

Oxy-Fuel Welding General Rules

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 welding fumes away from your face.
7. Wear a welding helmet with [lens 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.

Gas Cylinders

1. Do not use any cylinder that is not clearly marked.
2. Store compressed gas cylinders with the valve tightly closed and secure the valve protection cap in place.
3. Secure or chain all cylinders in an upright position.
4. When storing unconnected gas cylinders, keep the fuel gas and oxygen separated by at least 20 feet and away from highly combustible materials and open flames.
5. Do not force hose connectors which do not fit easily on tanks.
6. Fasten the regulator to the cylinder using a valve key wrench or an open ended wrench. Do not use vise grips or pliers.
7. While in use, keep the valve key wrench in place on the valve spindle.
8. Do not use oil, grease or other lubricants on the regulator.
9. 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.
10. Do not operate any pressure gauge beyond the top of its scale or near excessive heat (150 degrees) or where there is excessive vibration.
11. Keep the pressure regulator clear at all times.
12. When a cylinder becomes empty, label the valve stem with a tag labeled "MT", close the valve, and replace the valve protection cap.

Oxy-Fuel Welding

Pre-use inspection

1. Inspect hoses and torches before use. Replace damaged, burned, worn or leaking parts.
2. Do not use worn or cracked hoses.
3. Use the red hose for gas fuel and the green hose for oxygen.
4. Use the tip cleaners to clean the tips.
5. Tighten all connections prior to use and inspect all connections for oil or debris.
6. "Blow Out" hoses before attaching the torch.
7. Prior to lighting the torch, test the fittings on the regulator for leaks by applying a liquid soap solution on them. If the soap solution bubbles, do not use the torch.
8. Do not use a flame to check for propane or acetylene cylinder leak, use a leak or monitor detector.

Use

1. Do not face the gauge while opening the cylinder valve.
2. Ignite torches with friction lighters only. Do not use a cigarette lighter or matches,
3. Do not direct the flame of a torch towards gas or oxygen hoses.

Shut Down Procedure

1. Do not crimp the hose to shut off the torch. .
2. 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.
3. Do not leave pressure in the hoses when leaving the welding area. Bleed oxygen and fuel lines at the end of the work shift, using the following procedure:

- 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 two seconds, and then turn the valve knobs clockwise to close the valves again. If you do not observe a drop in pressure on the regulator gauge, repeat steps a. through b.

Arc Welding

1. Insulated gloves are required for all welders when using welding equipment.
2. Do not use the welding apparatus if the power cord is cut, frayed. Split or otherwise visibly damaged or modified.
3. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
4. Do not change electrodes using your bare hands: wear dry rubber gloves.
5. Use the respirator provided by your supervisor for your assigned duties.
6. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
7. Do not wear contact lenses when wearing a respirator.
8. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
9. Only use the respirator that has been issued to you.

Fueling

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

Hand Trucks

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 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 weight will be carried by the axle and not the handles. The operator should only balance and push.
6. Place the load so that it will not slip, shift or fall. Use straps, if they are 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. If your view is obstructed, use a spotter to assist in guiding the load.
9. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
10. Do not walk backward with the hand truck, unless you are going up stairs or ramps.

11. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
12. Move hand trucks at a walking pace.
13. Store hand trucks with the tongue under a pallet or shelf.

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 the pallet jack.
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

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. The forks are unequally spaced or cracks exist along the blade or at the heels.
4. The hydraulic fluid levels are low.
5. The hydraulic line and fitting have excessive wear or are crimped.
6. Fluid is leaking from the lift or the lift cylinders.
7. The hardware on the cylinders is loose.
8. The 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. The battery had cracks or holes, uncapped cells, frayed cable, broken cable insulation, loose connections or a clogged vent cap.

Starting the forklift

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

<p>NOTE: This document is not intended to be legal advice. It does not identify all the issues surrounding the particular topic. Public agencies are encouraged to review their procedures with an expert or an attorney who is knowledgeable about the topic. Reliance on this information is at the sole risk of the user.¹</p>
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