JOB AND EQUIPMENT SAFETY PRACTICES

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AERIAL LIFTS

General Rules

Before operating the machine, the operator must make a work survey of hazards such as uncompacted soil, ditches, debris, overhead electric lines, unguarded openings or hazardous conditions created by other trades. The machine should not be operated on surfaces other than those intended by and set out in the manufacturers instructions.

All equipment must be inspected prior to each shift by the operator. Such inspections should include the daily maintenance checks in accordance with manufacturer's instructions and a visual inspection or the machine for damage and devices which do not appear to operate properly Equipment which has obvious defects must be repaired before being operated.

Never use equipment for purposes or in ways for which it was not intended.

Report any unsafe condition.

Do not work on platforms if your physical condition is such that you feel dizzy or unsteady in any way. Workers must ascend to and descend from the platform using the facilities provided.

Workers must be properly instructed on the applicable model before they operate the equipment. Such instruction should include a review of manufacturers operating instructions, location of all emergency devices, safety decals, daily maintenance checks, machine limitations and pertinent regulations regarding use of the equipment. Workers must be able to exercise common sense and be competent to operate this equipment. A worker must not operate a powered elevating movable work platform when his physical abilities are impaired by illness medication, drugs or alcoholic beverages.

Elevating work platforms, normally, are not intended for use near electrically energized circuits. User should therefore consider the work platform to be non-insulated unless otherwise labeled.

Operating Rules

Only authorized persons must operate an aerial lift.

Read manufacturer's operating instructions. Never exceed the manufacturer's recommended load. All accessories must be installed and used in accordance with manufacturers recommended procedures. Perform manufacturer's daily maintenance checks and make visual inspection of vehicle and surrounding area to be sure both are clear of other personnel and obstructions (including overhead obstructions).

Lift controls must be tested each day prior to use to determine that such controls are in safe working order.

Do not use machine without guardrails. Do not stand on guardrails to gain extra reach. Do not use guardrails to carry materials unless designed for this purpose ant do not allow excessive overhang of materials when elevating the platform.

A full body harness must be worn and a lanyard attached to the boom or basket when working from an aerial lift.

Do not lean out over platform railings to perform work. Keep both feet on the floor.

Always close lift platform chains or doors.

Do not exceed vertical or horizontal reach limits.

Use any appropriate PPE such as eye protection, hard hat, etc.

Do not use ladders or makeshift devices on the platform to obtain greater height.

All personnel must remain clear while equipment is in use. Do not climb up or down extendible, articulating or scissor arms.

Outriggers or stabilizers must be used in accordance with manufacturer's recommendation.

Care must taken to prevent ropes, electric cords, hoses, etc. from becoming entangled in equipment when platform is being elevated or equipment moved.

Do not alter equipment or override safety devices in any way.

A powered elevating work platform must not be operated near electrically energized overhead power lines.

It is the responsibility or the operator to ensure that the load of workers, materials and tools on the platform does not exceed the capacity or the machine. Loads should be secured from rolling or excessive movement.

The machine must not be moved until the operator has determined by visual inspection that the direction of intended movement is clear of hazards, obstructions, and other site personnel.

Under no circumstances may a machine be modified without the written approval of the manufacturer. In addition, the machine must not be operated when any of the safety devices are inoperable.

When a scissor or boom lift is left unattended by the operator, the unit shall be locked or rendered inoperative to prevent the device from being started or set in motion by an unauthorized person.

Scissor lift

Boom lift

ASBESTOS SAFETY

Asbestos is a common building material found in piping, insulation, fireproofing, drywall, siding, roofing and floor tile, especially in older buildings. When disturbed, asbestos can become airborne and become a potentially serious health hazard. Exposure to asbestos has been linked to the lung disease asbestosis and lung cancer.

Definitions

Asbestos Hazard Emergency Response Act (AHERA) - Requires schools to inspect their buildings for ACM and prepare management plans which recommend the best ways to reduce the hazard from any asbestos that may be found.

Asbestos Containing Material (ACM) – Any material or product that contains more than 1% asbestos.

Friable – Material that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure.

Common Asbestos Containing Materials

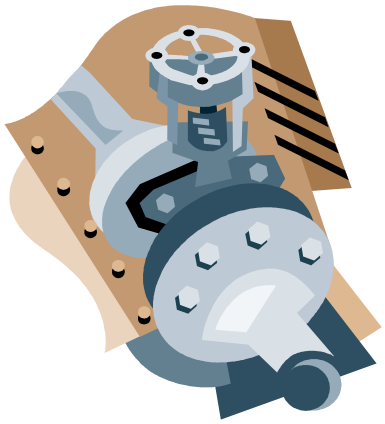
- Acoustical plasters
- Decorative plaster
- Fireproofing
- Hard plasters
- Pipe insulation
- Asbestos cement pipe
- Mudded fitting (tees, elbows, valves, etc.)
- Tank insulation
- Duct insulation
- Ceiling tile
- Transite board
- Fire brick
- Fire doors (interior)
- Floor tile and adhesive mastic
- Vibration joint cloth
- Electrical wire covering
- Thermal Surface Insulation (TSI)
- Roofing and roofing paper

Before any building renovation or remodeling work is conducted the presence and location of any asbestos must be determined.

Asbestos surveys must be performed by an accredited AHERA inspector prior to the performance of any asbestos abatement. Asbestos abatement should be performed only by certified asbestos workers.

Work Practices

- Spraying or otherwise disturbing asbestos containing material is prohibited.
- If you are unsure whether or not a material is ACM or if you suspect asbestos is present, stop work immediately and contact your supervisor for guidance.



BLOODBORNE PATHOGENS

Definitions:

Occupational Exposure: Reasonably anticipated skin, eye, mucous membrane (nose, mouth) or parenteral (i.e. needle stick) contact with blood or other potentially infectious materials (OPIM) that may result from the performance of an employee's duties.

Exposure Incident: A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of an employee's duties at work.

Universal Precautions: A method of infection control that assumes all blood and all body fluids are potentially infectious for HBV, HIV, and other bodily bloodborne pathogens.

How to Protect Yourself

If you are assisting an injured person, make sure you use the following personal protective equipment:

Disposable gloves: To clean up any potentially contaminated bodily fluid or blood; performing first aid on an injured person; handling or touching contaminated items or surfaces.

Face shields or a combination of masks and eye protection: Whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated.

Gowns, aprons, shoe covers, lab coat: Whenever splashes to skin or clothes are reasonably anticipated.

Resuscitator device (masks, shields): When performing CPR.

Tongs, brush and dustpan: Use to clean up broken glass or other materials that may be contaminated.

What if I am Exposed to Blood?

If you are exposed to blood or other bodily fluids:

- After removal of personal protective equipment, wash your hands and any other potentially contaminated skin area immediately, or as soon as possible, with soap and water;
- If blood or OPIM contacts mucous membranes then those areas must be washed or flushed with water as soon as possible following contact;
- If access to handwashing facilities is not possible, an antiseptic hand cleaner along with clean cloth/paper towel or antiseptic towelettes should be used. When antiseptic hand cleaners or towelettes are used, hands must be washed with soap and water as soon as feasible;
- Notify your supervisor of the exposure and complete an exposure incident report form.

Hepatitis B Vaccine

Hepatitis B vaccinations will be offered to employees identified as having potential occupational exposure to blood or other potentially infectious materials. If you have been identified as having potential exposure, you are strongly encouraged to receive the Hepatitis B vaccinations series.

CHAIN SAW SAFETY

Saw Inspection:

Chain Brake: Always make sure the hand guard and the chain brake are functioning and capable of stopping the moving saw chain in the event of kickback. A good chain brake has a centrifugal clutch that will activate the brake by impact only, even if the hand guard is not activated.

Throttle Lock: The lock on the top of the rear handle must be functioning and not taped down or broken. This prevents unintentional acceleration of the saw from incidental contact with fingers or sticks.

Chain Catcher: This projection at the rear of the chain must be in place. It guards against chain that is thrown off the bar and prevents it from coming into contact with the gas tank or your arm.

Bolts and Handles: All bolts and handles must be checked to insure they are tight.

Adjustments:

- Chain must not rotate when throttle is released
- Chain must not be loose on the bar; adjust tension
- Saw should not stall when idling nor should it stall when turned over; adjust idle as needed

Safety Clothing:

Hard hat
Eye (safety glasses) **and** face protection (face shield)
Hearing protection
Leg protection (chaps or leggings)
Boots with safety toes
First aid kit available

Operation:

- Chain saws must be started at least 10 feet from the fueling area
- Chain brake on when starting saw
- Start on the ground or otherwise firmly supported. Drop and throw starts are not allowed
- Never cut overhead with a chainsaw
- Hold saw firmly with thumbs and finger encircling both top handle and throttle handle
- Always hold the saw with two hands when cutting
- Chain brake on when walking with the saw more than 2 steps or removing one hand from the saw
- Carry saw by its front handle with chain bar pointing to the rear. Do not carry saw on your shoulder.
- Always cut at full throttle
- Clear the work area of brush and debris before beginning cut. Make sure you have firm footing and good balance
- Never bend over the saw, stand straight and to the left of the bar and a kickback will go over your right shoulder
- Sharpen the saw chain frequently
- Do not operate when you are tired. Excessive noise, vibration, emissions, and uncomfortable positions can cause fatigue
- Keep bystanders away from work area
- Shut off the engine before setting the chain saw down
- Refuel only after the saw has been shut off and the motor has cooled Wipe off any fuel that spilled onto the saw
- Use safety cans to store fuel

COMPRESSED GAS CYLINDERS

- Cylinders are a safe, economical way to store compressed gases, as long as they are used and stored correctly.
- Treat each cylinder as if it were full.
- Handle cylinders carefully. Don't drop them or let them hit against each other.
- Secure cylinders when they are being transported.
- Cylinder valves shall be closed before moving cylinders.
- All gas cylinders must be legibly marked with the name of the gas.
- Cylinders shall be kept away from radiators and other sources of heat.
- Empty cylinders shall have their valves closed.
- Valve protection caps, where cylinder is designed to accept a cap, shall always be in place, hand-tight, except when cylinders are in use or connected for use.
- Cylinders, cylinder valves, couplings, regulators, hose, and apparatus shall be kept free from oily or greasy substances.
- Oxygen cylinders or apparatus shall not be handled with oily hands or gloves. A jet of oxygen must never be permitted to strike an oily surface, greasy clothes, or enter a fuel oil or other storage tank.
- Unless cylinders are secured on a special truck, regulators shall be removed and valve-protection caps, when provided for, shall be put in place before cylinders are moved.
- Cylinder valves shall be closed when work is finished.
- Valves of empty cylinders shall be closed.
- Cylinders shall be kept far enough away from the actual welding or cutting operation so that sparks, hot slag, or flame will not reach them, or fire-resistant shields shall be provided.
- Cylinders shall not be placed where they might become part of an electric circuit.
- A hammer or wrench shall not be used to open cylinder valves. If valves cannot be opened by hand, the supplier shall be notified.
- Cylinder valves shall not be tampered with nor should any attempt be made to repair them. If trouble is experienced, the supplier should be sent a report promptly indicating the character of the trouble and the cylinder's serial number. Supplier's instructions as to its disposition shall be followed.
- Fuel-gas cylinders shall be placed with valve end up whenever they are in use. Liquefied gases shall be stored and shipped with the valve end up.
- Before connecting a regulator to a cylinder valve, the valve shall be opened slightly and closed immediately. The valve shall be opened while standing to one side of the outlet; never in front of it. Fuel-gas cylinder valves shall not be

cracked near other welding work or near sparks, flame, or other possible sources of ignition.

- Before a regulator is removed from a cylinder valve, the cylinder valve shall be closed and the gas released from the regulator.

- Nothing shall be placed on top of an acetylene cylinder when in use which may damage the safety device or interfere with the quick closing of the valve.

- If cylinders are found to have leaky valves or fittings which cannot be stopped by closing of the valve, the cylinders shall be taken outdoors away from sources of ignition and slowly emptied.

- The cylinder valve shall always be opened slowly.

- An acetylene cylinder valve shall not be opened more than one and one-half turns of the spindle, and preferably no more than three-fourths of a turn.

- A suitable cylinder truck, chain, or other steadying device shall be used to prevent cylinders from being knocked over while in use.

- Inside of buildings, cylinders shall be stored in a well-protected, well-ventilated, dry location, at least twenty feet from highly combustible materials such as oil or excelsior. Cylinders should be stored in definitely assigned places away from elevators, stairs, or gangways. Assigned storage spaces shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons. Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.

- Acetylene cylinders shall be stored valve end up. Never store acetylene on its side.

- Oxygen cylinders shall not be stored near highly combustible material, especially oil and grease

- Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of twenty feet or by a noncombustible barrier at least five feet high having a fire-resistance rating of at least one-half hour. (Cylinders “in-use,” secured to a hand truck or structural member, with regulators, hoses, and torch temporarily removed for security purposes overnight or weekends, are not considered “in-storage.”)

ELECTRICAL HAZARDS

The easiest way to reduce the possibility of electrocution is to:

- Identify all hazardous energy sources before beginning installation, maintenance, service or repair tasks.
- De-energize live electrical equipment/lines before working on them. Follow lockout/tag-out procedures
- Never do repairs on electrical equipment unless you are authorized and qualified to do so.
- Use power tools that are double-insulated or have ground-fault circuit interrupters (GFCI) protecting the circuit
- Look for and avoid overhead power lines
- Make sure equipment is grounded. Never use three-pronged cords which have had the third (ground) prong broken off
- Make sure receptacles are mounted and secured
- Make sure panel boxes are covered
- Do not use extension cords as permanent wiring
- Watch for wire, cords, plugs and connections that are damaged, worn or broken. Inspect cords and plugs for exposed or loose wiring or other types of damage
- Never drape electrical cords over heat sources
- Never store flammable liquids near electrical equipment
- Do not handle any electrical equipment including cords and plugs, with wet hands
- When unplugging a cord, pull on the plug rather than the cord
- Never use a ladder made of aluminum or one with metal reinforcement when doing any electrical work. This include changing a light bulb
- Never use water on an electrical fire. Use an extinguisher rated for Class C fires (such as your common ABC extinguisher)

Electrical Accident Response:

- Do not panic
- Call for help
- Do not touch the victim or anything in contact with the victim. They could still be energized
- De-energize the circuit
- Separate the person from the energy source using something non-conductive such as a dry wood broom, leather belt, plastic rope
- Administer first aid/CPR as needed
- Treat for any burns
- Keep the victim lying down, warm and comfortable
- Make sure the victim receives professional medical attention

ERGONOMICS- OFFICE

The office ergonomics reference below is designed to give some basic guidelines for workstation design and layout, and to help prevent injury due to unnecessary strain resulting from cumulative trauma.

Workstation Design

Use the following guidelines to assist in laying out your workstation to reduce cumulative trauma disorders (CTD) risk factors:

Keyboard

- Should be flat on surface at approximately elbow level
- Wrists are neutral when on home row
- Elbows are bent at 90 degrees
- Shoulders should be relaxed with arms hanging comfortably by sides
- Mouse should be located at the same level as the keyboard and immediately beside it
- May use a padded wrist pad for mouse and keyboard to elevate wrists to neutral and eliminate contact with hard surfaces
- Hold mouse lightly. Movement of mouse should occur from the shoulder instead of only at the wrist
- When not actively using the mouse, ease your grip on the mouse and let your hand relax

Chair

- Hips and knees should be at the same distance from the floor. Knees should be slightly higher than the seat of the chair to allow for good blood circulation to the lower legs
- Feet flat on the floor or foot rest
- Should be room between the front edge of your chair seat and the back of your knees
- Sit back in the chair to allow weight distribution on buttocks, not thighs
- Back rest is upright with lumbar support at small of back, and head aligned over shoulders
- Seat has cushioning and is rounded-has "waterfall" front (no sharp edge)
- If chair has armrest they should support both forearms and not interfere with movement
- Legs and feet have clearance space under desk and thighs have clearance between chair and table/keyboard

Monitor

- Top line of screen is at or below eye level so neck needs not be bent
- Employee with bifocals/trifocals is able to read screen without bending head or neck backward
- Monitor distance should be at least 18 inches from head
- Monitor position directly in front of employee
- No glare is present on the screen

Other Considerations

- Document holder suggested for copy intensive work. Should be placed at the same level at the monitor
- Telephone can be used with head upright and shoulders relaxed. "Neck holder" devices should not be used. Consider a telephone headset
- Frequently used items located near employee so as to minimize reaching
- Incorporate preventative stretch breaks from constant keying every hour
- Change from static positions every 30 minutes to help reduce neck and lower back strain
- Use a light touch on the computer keys to reduce tension in fingers, forearms and shoulders
- Make sure there is sufficient light for completion of tasks without straining your eyes

FALL PROTECTION & PREVENTION

Definitions

Fall Protection Work Plan: Identifies areas on the job site where a fall hazard of ten feet or more exists. The plan describes the methods of fall protection to be used and includes procedures for installation, use, inspection, and removal of the fall protection methods.

Fall Arrest System: Approved safety equipment components such as body harnesses, lanyards, deceleration devices, droplines, lifelines and anchorages rigged to arrest a fall. Body belts may not be used.

Fall Restraint System: Components that function together to restrain an employee to prevent free falling greater than two feet.

Guardrails: A barrier erected to prevent employees from falling to lower levels.

Competent Person: An individual knowledgeable of fall protection equipment including manufacturers' recommendations and instructions for the proper use, inspection and maintenance: and who is:

- Capable of identifying existing and potential fall hazards
- Has the ability to take prompt corrective action to eliminate those hazards
- Is knowledgeable of the WISHA regulations

Procedures

1. Use engineering controls when possible to eliminate the hazard by installing temporary guardrails or covering floor openings.

2. A Fall Protection Work Plan shall be developed for each work site or activity where a fall hazard of ten feet or more exists.
3. The Fall Protection Work Plan shall include:

- Identification of all fall hazards in the work area
- Description of fall arrest or restraint systems
- Description of the method of providing overhead protection to workers who may be in areas below the work site
- Description of the rescue plan for prompt, safe removal of injured workers to include the following:
  - Emergency phone numbers
  - Site address and specific direction to work site
  - Location of the first aid kit

Open-sided floors, platforms or surfaces four feet or more above an adjacent floor or ground level, (except where there is an entrance to a ramp, stairway, or fixed ladder) shall be guarded by a standard guardrail.

FORKLIFT OPERATION

Policy

- Only trained and authorized operators will be permitted to operate powered industrial trucks.
- Training will consist of classroom safety training, hands-on training with equipment used by the district, and evaluation of the operator's performance in the workplace.
- Training and evaluation must be completed prior to permitting an employee to operate the truck (except for training purposes).
- An evaluation of each operator's performance must be conducted at least once every three years.
- Inspect each forklift before being placed in service.

Truck Operations

- All employees will wear the seat belt when operating a sit-down forklift.
- Powered industrial trucks must not be driven up to anyone in front of a bench or other fixed object.
- Persons are not to be allowed under the elevated portion of any powered industrial truck whether loaded or empty.
- No one but the operator is permitted to ride on the vehicle unless seats are provided for each additional person.
- Do not place any body part between the uprights of the mast or outside the running lines of the truck.
- When left unattended, the equipment will be put into neutral, the emergency brake will be set and the power will be shut off. When parked on an incline, the wheels will be blocked.
- When the operator has dismounted the powered industrial truck and is within 25 feet of the truck and in view of the truck, the load will be lowered, the controls will be neutralized and the brakes will be set.
- Make sure there is sufficient clearance from overhead installations, lights, pipes, sprinkler system, etc.
- Never overload. Know the rated capacity of the truck.
- Maintain a safe distance (3 feet) from the edge while on any elevated dock or platform.
- The truck is to be equipped with an overhead guard to protect the operator from falling objects.
- Access to fire aisles, stairways, and fire equipment must be kept clear.

Traveling

- Under all travel conditions; operate a powered industrial truck at speeds that will permit it to be brought to a stop in a safe manner. Avoid sudden starts or stops. Slow down for wet and slippery floors. Avoid bumps, holes and loose materials that may cause the truck to swerve or tip.
- No stunt driving or horseplay.
- When negotiating turns, speed must be reduced to a safe level.
- The powered industrial truck will be kept under control at all times.
- Drive defensively. Pedestrians have the right of way.
- When vision is obscured, slow down and sound the horn.
- If the load blocks the operator's view, the powered industrial truck will be driven in the direction that provides the best visibility. Drive backward when load is too high or too wide to

see around. Don't let guards obstruct your vision.

- Keep forks as low as possible while traveling. Do not travel with the load raised.
- The operator will keep a clear view of the path of travel.
- When ascending or descending grades in excess of 10%, always keep the load upgrade. If it is necessary to travel up a slope with a load that obstructs the driver's vision, a second person, on the ground should be used to help guide the driver. When operating on a grade without a load, drive with the forks facing downgrade. Do not turn sideways on an incline. Block the wheels if it becomes necessary to stop on a grade.

Loading

- Inspect the load to be lifted. Only stable and safely arranged loads will be handled. If it appears unstable, do not attempt to move it.
- Only loads within the rated capacity of the powered industrial truck will be handled.
- Always space forks to fit the load. Never carry loads off center.
- Make sure the pallets used are in good condition.
- Tilt the load back until it rests securely for traveling.

Reach Trucks

- When moving into a rack, make sure both outrigger legs clear the rack.
- If you extended the reach mechanism, retract if fully.
- The traveling position for a reach truck is positioning the load about 6 inches above the outriggers or as low as possible to clear obstructions.

Powered Pallet Jacks

- Always keep at least one hand on the controls as the load trails.
- Avoid sudden starts and stops.
- Never take on riders.
- Never use a powered pallet jack to pull or push other vehicles.
- Never raise or lower the load while the vehicle is in motion; wait until it comes to a complete stop.
- Never step off a walkie-rider until it has come to a complete stop.
- When putting down a load, steer the load into place with both hands on the controls.

GASOLINE PRECAUTIONS

Gasoline can be dangerous if not handled or stored properly. Gasoline should only be used for its intended purpose, as a motor fuel, and stored only when absolutely necessary. It should not be used as a solvent, cleaner, barbecue starter or for any other non-engine use.

The following precautions should be taken when filling a container with gasoline from a dispenser:

- Keep gasoline away from ignition sources like heat, sparks, and flames.
- Do not smoke when filling a container.
- Shut off the vehicle's engine. Disable or turn off any auxiliary sources of ignition.
- Only store gasoline in containers with approved labels. Never store gasoline in glass or unapproved containers.
- Portable containers must be placed on the ground, and the nozzle must stay in contact with the container when filling, to prevent buildup and discharge of static electricity. Do not fill a container in or on a vehicle, including in car trunks or truck beds. (Placing the container on the ground minimizes any static electricity buildup that could lead to a spark and cause a fire.)
- Fill the container at a slow rate. This will decrease the chance of static ignition buildup and minimize incidents of spillage or splattering.
- Manually control the nozzle valve throughout the filling process.
- Keep your face away from the nozzle or container opening.
- Avoid prolonged breathing of gasoline vapors.
- Never siphon gasoline by mouth. Do not put gasoline in your mouth—gasoline can be harmful or fatal if swallowed. If someone swallows gasoline, do not induce vomiting. Contact a doctor immediately.
- Keep gasoline away from your eyes and skin, because it may cause irritation.
- Use gasoline only in open areas that get plenty of fresh air.
- Never use gasoline to wash your hands.
- Remove gasoline-soaked clothing immediately.
- Fill container no more than 95 percent full to allow for expansion.
- Place cap tightly on the container after filling—do not use containers that do not seal properly.
- If gasoline spills on the container, make sure that it has evaporated before you place the container in your vehicle.
- Report spills to the attendant.
- Use gasoline as a motor fuel only.
- When transporting gasoline in a portable container make sure the container is secure from tipping and sliding, and never leave in the direct sunlight or in the trunk of a car.

Fueling a vehicle

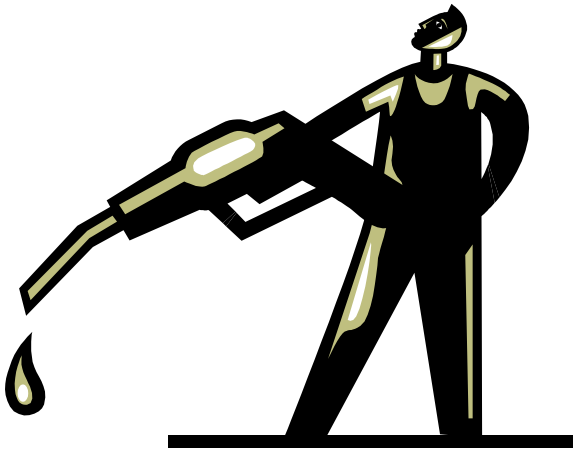
- Shut the engine off while fueling
- Do not smoke, use an open flame, or any source of spark while in the vicinity of the fueling operation
- Make sure the nozzle of the fuel hose is in contact with the intake pipe of the tank (to dissipate static charge)

Gasoline must be stored in an approved container or tank. Storage in anything other than an approved container is strictly prohibited by fire prevention codes.

Gasoline is a flammable liquid and should be stored at room temperature, away from potential heat sources such as

the sun, a hot water heater, space heater or a furnace, and away from ignition sources. Gasoline vapors are heavier than air and can travel along the floor to ignition sources. Therefore, appliance pilot lights or igniters should be kept more than 50 feet from where gasoline is stored or handled, and elevated. Other precautionary measures include:

- Do not smoke where gasoline is handled or stored.
- Always keep gasoline out of reach from children.
- For better ventilation, it is best to handle gasoline outdoors.
- Keep gasoline containers tightly closed and handle them gently to avoid spills.
- Do not mix even a small amount of gasoline with kerosene or diesel.
- Do not use gasoline in kerosene heaters or lamps.
- Store gasoline in a building separate from the house or place of occupancy, such as a shed or garage.
- Put gasoline in a small engine (like a lawnmower) only when the engine and attachments are cool.



Storage of gasoline requires developing precautions for spill cleanup. Minor spills should be absorbed with sawdust, paper or rags. Larger spills may be contained and collected. Check with your local government or hazardous waste disposal center to determine the proper avenues for disposing of spilled gasoline. Place recovered gasoline and cleanup materials in approved, labeled containers for proper disposal. Never dispose of spilled gasoline or cleaning materials on the ground or into your garbage, drains, toilets or sewers. If you do, it might cause a fire, or seep into streams, bays, lakes or your groundwater.

GROUNDS MAINTENANCE SAFETY

- If poisonous plants or those dreaded blackberry bushes are present, keep a safe distance and let others know about the dangers. If venomous reptiles or dangerous insects are part of the neighborhood, keep a diligent lookout. Know what to do if a bite or sting occurs and keep the appropriate first aid supplies handy.

- Appropriate clothing and protective equipment can save you a lot of grief. If you're working with rose bushes, wear puncture resistant gloves. If you're working with power tools, padded anti-vibration gloves may be appropriate. If you're heading for thick brush, long thick pants are more appropriate than a light pair of shorts. To protect yourself from the sun wear a long sleeve shirt and long pants. If you wear a short sleeve shirt apply sunscreen to protect the exposed skin. Wear a hat with a visor for protection from the sun's heat and glare. Do not wear jewelry since it can get caught in moving parts.

- Always wear safety glasses to protect your eyes from debris propelled by power equipment. Wear a hart hat when working around low tree branches or falling objects. If you are bothered by dust and pollen, consider wearing a disposable particulate mask to prevent you from inhaling airborne particles. When using powered equipment wear earplugs, earmuffs or both. Many injuries are caused by workers slipping on wet grass and steep inclines or by their feet sliding under equipment blades. High-top, lace-up boots with traction soles and steel-reinforced toes is the best footwear to wear to protect you from blades and heavy objects.

- Make sure you get a good night's sleep. Drink five to six ounces of fluid several times a day. Protect your back by using proper lifting techniques. Cuts and scrapes should be treated with an antiseptic covering as soon as possible. Immediately is best, so keep first aid supplies handy.

- Be sure no children or other bystanders are near you when you operate equipment. While doing grounds maintenance work, keep an eye out for pieces of glass, metal or wire and remove all hazards before they can cause damage or injury. Being outdoors also means exposure to pests such as mosquitoes, bees, wasps, yellow jackets, ants, ticks, spiders, snakes and rodents. Learn how to recognize and avoid potentially dangerous critters and learn basic first aid to use if you're bitten or stung.

- Always read the operator's manual before using the equipment. Read warning signs and labels on all equipment. Learn about your equipment's safety features and the location and function of controls and potential hazards.

- Inspect your equipment before each use. Make sure safety devices and guards are in place. Look for defective or missing parts and never use equipment that needs repair. Checking tools before you use them protects you while you use them. A shovel with a rotting or cracked handle is just one example of an accident waiting to happen. If you can't replace the handle, buy a new shovel.

- Only use your tools for the job they were made to perform. Don't use screwdrivers as hammers or chisels as screwdrivers. Misuse of tools is a common cause of injuries.

- Keep tools in a safe place that protects them from damage. Rakes, shovels and hoes should be stored so blades won't be dented or bent. If a broken tool cannot be fixed, replace it.

- When using corded tools outside, it is recommended that you always plug into a circuit protected by a ground fault circuit interrupter.

- Use only approved safety cans for gasoline. Never fuel indoors. Keep gasoline away from ignition sources. Shut off the equipment's engine before fueling and always clean up fuel spills immediately.

- Never leave equipment unattended. If you need to walk away from your equipment, turn the power off.

- Know the hazards associated with fertilizer and pesticide application. Read the labels for explanations of safe use, proper application, proper storage, handling and disposal and for emergency procedures.

HAND HAZARDS

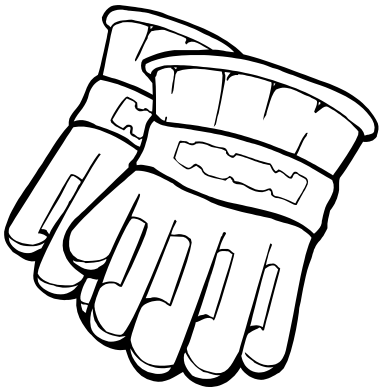
Two of the most intricately designed instruments that we work with are our hands. There are probably no other "tools" that could take the beatings our hands take and still carry out precision maneuvers. But most of us take our hands for granted, which can be a painful mistake when you consider that hand injuries account for roughly a third of all disabling on-the-job injuries each year.

To avoid hand injuries, here are 15 basic precautions you can take:

1. **Keep your hands free of grease and oil.** Slippery hands can get you in trouble, so if you get grease on them, clean them up right away.
2. **Take time to remove or bend down protruding nails,** splinters, and sharp edges on materials you are going to be working with.
3. **Don't wear rings when you're working.** They can very easily catch on machinery and other objects, resulting in a badly cut finger or worse.
4. **Never attempt to handle broken glass,** nails, or other sharp objects with your bare hands. Sweep them up or wear gloves for the job.
5. **Wear gloves that are clean and in good condition** when working with caustic chemicals, sharp surfaces, sharp instruments, and other materials that might injure your hands.
6. **Use the machine to do the job it was intended for.** Don't try to squeeze an additional function out of it (don't use a screwdriver as a chisel) or it might squeeze your hand. Don't work with moving machinery unnecessarily. If the equipment can be stopped, do so. Working on moving equipment presents a real threat to hands and fingers.
7. **Check machinery.** Before you use a machine that is guarded, double-check to make sure the guard is in place. Replace machine guards following repairs that require the removal of guards.
8. **Respect machine guards.** Never put your fingers or your hands through, under, over, or around the guard, which is there for your protection.
9. **Watch what you grab.** How do you know for sure that it isn't red hot?
10. **Keep your work area clean** so you don't place a hand in a pile and come away with a cut. Any time you've been working with sharp instruments put them back in their cases, out of harm's way.
11. **Use your brain when performing housekeeping tasks.** For example, don't push trash down into a trash can with your hands- someone else may have thrown in broken glass, hardware, a needle, or a solvent-soaked rag or towel.
12. **Keep your hands clean.** Washing them often with soap and warm water helps prevent dermatitis. Barrier hand creams put on before beginning a job can also protect against skin irritants.
13. **Anticipate tool problems.** When using wrenches, bars, screwdrivers, and other hand tools, with which you expect resistance, anticipate that the tool might slip or the object to which pressure is being applied may suddenly give way.
14. **Never work on equipment that may start up without first de-energizing it.** Eliminate the possibility of automatic startup or release of stored energy. That's what lockout/tagout procedures are

for. And it's important to de-energize electrical equipment because flash burns caused by electrical equipment shorting out are an ever-present threat to hands and fingers when work around such equipment is being performed.

15. **If the work being performed requires gloves, use them!** Gloves offer protection from wood and metal splinters, caustics, acids, electrical burns, chemicals, and many other sources of injury. No type of glove can protect from all hazards. Gloves need to be selected based on the protection they provide for each particular job hazard. If you are not sure of the proper type of glove for the job, call the ESD risk management department for assistance.



HAND TOOLS

Inspection
- Maintain in serviceable condition
- Check handles for cracks, splinters, and taped repairs
- Be sure the tool handle is fitted tightly and securely

Hammers and striking tools
- Use a hammer of appropriate weight and size for the task
- Do not use a hammer if the handle is damaged or loose
- Remove from service any hammer exhibiting signs of excessive wear, cracks, mushrooming or chips
- Do not use a hammer to strike another

Screwdrivers
- Never use a screwdriver as a pry bar, chisel, punch, stirrer or scraper
- Always use a screwdriver tip that fits the slot of the screw
- Throw away screwdrivers with broken or worn handles
- Use both hands when using a screwdriver. One to guide the tip and the other to turn the handle. Final tightening requires both hands on the handle

Pliers
- Do not use pliers as a hammer
- Hardened wire must only be cut with pliers designed for the task
- Pliers are not substitutes for wrenches. Use a wrench when turning nuts and bolts

Wrenches
- Must not be used if sprung or worn to the point slippage occurs
- Choose a wrench that fits the fastener you wish to turn
- Always try to pull on a wrench instead of pushing

Saws
- Make sure saw body is straight (no bends)
- Inspect for sharpness and missing teeth
- Check handle for cracks and that blade is securely attached

Knives
- Must be sharp
- No burrs or nicks
- Cut away from body. Never cut on items held between the knees or legs

Other tips
- Do not use a dull, broken, or defective tool
- Do not place tools in contact with high heat. This could reduce the hardness of the tool
- When working around electrical components, first turn power off and use tools specifically marked as electrically insulated
- Always use non-sparking tools when in the presence of flammable dusts or vapors
- Never use your hands or fingers to test whether or not a tool is sharp.
- Always carry a tool by its handle and hold it so the point or sharp edge is aimed down toward the ground
- Plan the work so you can keep your balance. Always keep your weight on both feet, and don't over reach
- Don't lay tools down near the edge of the bench, down where they could roll off, where someone could bump into them or where someone could trip over them
- Wear proper PPE, especially eye protection, gloves, and safety shoes with a reinforced toe
- Always keep your hands and arms out of the path of a cutting tool. Never aim a cutting tool towards your body.

HEARING CONSERVATION

Employees exposed to noise levels of 85 decibels (dB) or greater, based on an 8-hour time-weighted average (TWA) are required to wear hearing protection and will be included in the Hearing Conservation Program.

If two people 3 feet apart must shout to be heard, the background noise is too loud (above 85 decibels).

Hearing Protection

Hearing protection (ear plugs, ear muffs, etc.) is available to you at no cost. Employees are required to wear hearing protection in the following situations:

- Employees exposed to an impulsive or impact noise measured at or above 140 dB peak sound
- Employees exposed to a continuous noise above 115 dB;
- Employees exposed at or above an 8-hour TWA of 85 dB.

Ear Plugs

- Earplugs are made of foam, rubber or plastic and are either one-size-fits-all or in sizes small, medium and large.
- Some are disposable, some are reusable.
- They are lightweight, and require no maintenance.
- They are inserted into the ear canal.

Ear Muffs

- Ear muffs cover the whole ear and are preferred by some people.
- They have replaceable pads and some high-tech styles filter out specific noise pitches.
- They last longer than most plugs.

Noise Reduction Rating

- The "noise reduction rating" or "NRR" of hearing protection is measured in decibels.
- The NRR is found on the earmuff or earplug package. The higher the number, the greater the protection.
- Effective Protection is 7dB less than the manufacturer's NRR rating; for example, earplugs with an NRR of 26 are considered to reduce exposure of 92 dB to 83 dB [92- (26-7)].

Proper Use

- Earmuffs and plugs provide good protection only when used properly.
- Earplugs not well inserted into the ear canal will not provide complete protection.
- Earmuffs not snug against the head will "leak" noise into the ear.

Examples of Commonly Used Noisy Equipment

Equipment	Noise Level
Back Hoe	85-95 decibels
Chain Saw	110 decibels
Front-end Loader	90-95 decibels
Gunshot	140 decibels
Jackhammer	112 decibels
Lawn Mower	90 decibels
Tractor	95-105 decibels
Circular Saw	90-100 decibels

HEAT STRESS DISORDERS

Heat stress disorders range from mild disorders such as sunburn, fainting, cramps, and heat rash to more dangerous disorders such as heat exhaustion or heat stroke.

Symptoms of heat stress can include: sweating, clammy skin, fatigue, decreased strength, loss of coordination and muscle control, dizziness, nausea, and irritability.

Heat stroke is a medical emergency! It can cause permanent damage to the brain and vital organs, or even death. Heat stroke can occur suddenly, with little warning.

Symptoms of heat stroke may include:

- high body temperature (usually 105 ^{o} F or higher)
- absence of sweating- in most cases
- hot, red or flushed, dry skin
- rapid pulse
- high blood pressure
- difficult breathing
- headache or dizziness
- confusion or delirium
- loss of consciousness
- coma

In the case of heat stroke, call for medical help immediately! In the meantime, you should move the victim to a cool place, cool the person quickly by splashing water on him/her, loosen clothing, and massage body with ice. A conscious person may be given sips of water. Don't give liquids to an unconscious person.

CONTROLLING HEAT STRESS

- Acclimatize your body to the heat.
  - Gradually increase the time you spend in the heat.
  - Most people acclimatize to warmer temperatures in 4-7 days.
  - Acclimatization is lost when you have been away from the heat for longer than 1 week.
  - When you return, you must repeat the acclimatization process.
- Drink at least 4-8 ounces of fluid every 15-20 minutes, even if you don't feel thirsty. THRIST IS NOT A GOOD INDICATOR OF DEHYDRATION. Non-caffeine drinks such as water, juices and sports drinks are the best choices. Sports drinks replace not only water but electrolytes. Electrolytes stimulate thirst and help the body absorb more water and carbohydrates. Never drink alcoholic beverages, since alcohol dehydrates the body. Salt tablets are not recommended. Your normal daily food intake should contain enough salt. If you want to increase your salt intake eat salty foods such as chips.
- Be sure your noon meal is light and cool. Save your heavy meal for home. Heavy meals reduce your ability to get rid of heat because they redirect blood flow to your digestive tract instead of your skin surface. Fatty foods are harder to digest in hot weather.
- Get adequate sleep during off shift hours.
- Rest breaks should be taken in a cooler environment if possible.
- Use fans to circulate the air.
- Wear lightweight clothing which allows moisture to evaporate more quickly. Cooling vests may be worn to lessen the likelihood of heat stress.
- Stay out of the summer sun as much as possible, especially between 10:00am and 2:00pm.

HOUSEKEEPING AND OFFICE SAFETY

Close attention to good housekeeping and office safety encourages team work, prevents accidents and creates a wholesome and productive work environment.

- Employees must report all injuries to their supervisor and Human Resources.
- Drawers of desks and file cabinets shall be kept closed when not in use.
- Only one drawer of a file cabinet shall be pulled out at a time in order to avoid tipping over (unless the cabinet is fastened to the wall).
- Do not sit on the edge of a chair. Do not tilt back when sitting in a straight chair.
- Boxes, chairs, desks or other furniture are not to be used to expand your reach or in place of a ladder.
- The floor should be kept free of tripping hazards such as telephone cords, extension cords, books and papers, and boxes.
- Material should be stored on shelves in a manner to prevent falling; heavy objects should be placed on lower shelves.
- Unsafe electrical cords, faulty electrical or other equipment, or any other hazardous condition must be reported promptly to the supervisor.
- Loose-fitting clothing, long unrestrained hair, dangling bracelets, rings, pendants and ties shall no be worn around moving machinery.
- Do not place broken or sharp items in the waste containers.
- Always use proper body mechanics while lifting.
- Know at least two routes for exiting the building on case of an emergency.
- Read and be familiar with the district Emergency Handbook.
- Learn the locations of emergency equipment such as fire extinguishers, first aid kits, and the automated external defibrillator (AED).
- Report and correct if possible all unsafe conditions immediately.
- Do not operate equipment unless you are trained to do so.
- Look before you walk and make sure your path is clear.
- Treat all bodily fluids as infectious and use universal precautions to reduce the risk of exposure.
- Never do anything that is unsafe in order to get the job done. If the job is unsafe, report it to your supervisor.
- When in doubt about a safety procedure or hazard in the workplace, ask your supervisor.
- Learn the safe way to do the job and then always do it that way.
- All work must be carried out according to appropriate safe work practices and job procedures.
- Pay close attention to your work. Avoid unsafe actions.
- Do not run; watch your step; keep firm footing at all times.
- Horseplay will not be tolerated.
- Employees must be watchful of each others security as they go to and come from the parking lot. Employees should have their keys out and ready to use; watchful of their surroundings, and escort each other, as needed.

KITCHEN SAFETY TIPS

There are three basic rules to remember when working in the kitchen:

1) Be on the look out for potential hazards. They are always present.
2) Use safe work procedures. Doing things the correct way and not taking short cuts can prevent accidents.
3) Use protective equipment when needed.

Hygiene

Always wash your hands before beginning to work in the kitchen. Also, wash your hands at regular intervals as necessary. Keep nails clean and cover any cuts with waterproof bandages. Remove any jewelry that might get caught in machinery. Do not wear dangling sleeves that might get caught in appliances or catch on fire. If you wear gloves, use a non-latex type of glove.

Avoiding Burns

You can not avoid having heat sources in the kitchen, but you CAN avoid burns by following these simple rules:

- Use dry hot pads when removing pans and kettles from the range or oven. Get help when handling large roasting pans and kettles.
- Keep pot handles turned away from burners and aisles.
- Lift lids from pans carefully to avoid steam burns.
- Make sure you have a surface that is clean and large enough to hold the hot pan you are moving.
- Turn off unused burners...save energy as well as eliminating possible burns.
- Avoid loose clothing when working around the range, oven or other machines. Keep sleeves buttoned.
- Avoid splashing water into the deep fryer. Always use basket, and submerge food slowly when using the deep fryer.
- If you have to leave the area, make certain others know what is hot before you go.

Preventing Knife Cuts

Use knives safely by following these rules:

- Keep knives sharp. Store properly. Don't let the handle or the blade extend into walking or working areas when you put the knife down.
- Keep handles clean and in good repair. Tighten or replace loose handles.
- Use the right knife for the job!
- Cut AWAY from...not toward...your body. When slicing, stand to the side of the cut. Use a fork for steadiness. Keep fingers in the clear.
- Always return clean knives to their proper storage areas when done working with them.
- Use a cutting board or block when chopping or slicing to prevent slips and dulling.
- If you are working with a knife and you drop it, stand back and let it fall, do not try to catch it!
- If you have a dirty knife, don't toss it in the dishwater. The dishwasher (which may be you) may come up with a handful of sharp knife.

Falls and Spills

- Wipe up spills IMMEDIATELY.
- Clean floors on a daily schedule.
- Keep aisles and passageways clear at all times. Don't leave objects out on the floor where they can trip you up. Put away brooms and mops after each use.
- Remove tripping hazards such as cords and hoses, by storing them properly.
- Close cabinet doors and drawers when done.

Lifting

- Keep your back straight, bend your knees, and let the strong leg muscles do the lifting. Keep the object you are lifting close to your body.
- Get help when attempting to lift heavy or bulky objects.
- Store heavy cases or cartons on lower shelves...preferably at waist level...and place lighter items on high shelves.
- Always use the proper type of ladder to reach high objects. Make certain the ladder is in safe condition...no broken rungs or defective side rails or braces.

Fire

- Keep flammable materials away from the range or stove. Do not put napkins, towels or paper containers on the range. Avoid the use of flammable liquids in the kitchen…the vapors can be explosive.
- Watch cooking pots and use the lowest practical heat.
- Check that all burners and the oven are off when finished and when leaving for the day.
- Know the location of fire extinguishers and controls for sprinklers or other fire fighting equipment.

KITCHEN MACHINES

BE SURE YOU KNOW WHAT YOU ARE DOING BEFORE OPERATING ANY MACHINE. If you do not know how it operates, get instructions! Here are some other suggestions, which can help you use these labor saving devices safely:

- Make certain all machines are properly grounded electrically. If you get a "tingle" SHUT DOWN THE MACHINE AND REPORT IT IMMEDIATELY!
- Keep guards in place when machine is operating. Replace all guards that have been removed for cleaning, adjustment or repairs.
- Keep hands and fingers out of all machines. Do not attempt to repair or adjust any machine until it has been turned off and the power supply is disconnected.
- Use a brush to clear crumbs, scraps and other materials when cleaning any machine.
- Inspect all electrical cords on a regular basis. Watch for any breaks or cuts, or frayed areas where the cord passes over an edge or something has sat on it. Have any damage repaired.
- Don't overload circuits by using multiple plugs or extension cords.
- Don't use appliances near the sink or other water. If there are wall sockets near the sink, make sure it has a "Ground Fault Circuit Interrupter" type socket assembly.

Slicers:

- "Zero" the blade after each use.
- When wiping blade, wipe from center hub to edge, to prevent slashing injury from edge of blade. Close blade when not in use.
- Turn slicer off for loading and unloading of food.
- When cleaning the slicer, unplug it first.

Mixers:

- Make certain beaters are properly fastened, and bowl elevator is locked in position before starting the unit.
- ALWAYS...WITHOUT EXCEPTION...STOP THE MACHINE BEFORE ATTEMPTING TO REMOVE ANYTHING FROM THE MIXING BOWL.
- Do not attempt to lift heavy mixing bowls without help.

LADDERS

Ladder Inspection

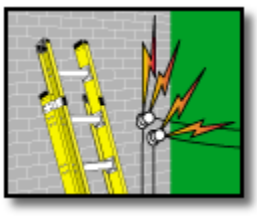
- Look over the ladder carefully - before buying and each time before climbing. Look for missing, damaged or loose components.
- DON'T use a damaged ladder.
- Make sure that working parts move properly and that all connections are secure.
- Carefully check spreaders, extension ladder locks and flippers, and safety shoes.

Care & Maintenance

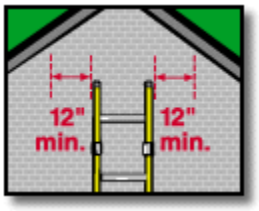
- Keep ladders in good condition.
- Clean spills or drips and keep the ladder free from oil, paint, or other slippery materials.
- Lightly lubricate moving parts.
- Inspect the rails of fiberglass ladders for weathering due to UV (ultraviolet) exposure.
- Keep the ladder protected from heat, weather, and corrosive materials.

Safety Before You Climb

- Use fiberglass ladders if there is even a remote possibility of working near electricity or overhead power lines. Fiberglass is electrically non-conductive.
- NEVER use metal, water logged or dirty wood ladders near electricity!



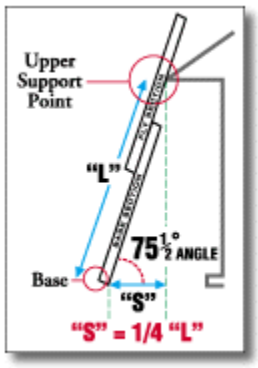
- Fully open the stepladder and firmly lock both spreaders.
- Position the ladder so you can face your work and do not have to lean sideways.
- Be sure that all ladder feet are on firm, level ground. Don't place a ladder on slippery surfaces or place loose materials underneath a ladder. Solid footing is necessary for safe ladder use.
- Place the extension ladder top so both rails are fully supported. Support area should be at least 12" wide on both sides of the ladder.



- Always be sure that the locks are fully engaged and the fly is in front of the base before climbing.

4 TO 1 Ratio

Place an extension ladder at a 75-1/2° angle. The set-back ("S") needs to be 1 ft. for each 4 ft. of length ("L") to the upper support point.



Safe Climbing Habits

"Do's"

- Read and carefully follow all instructions, warning labels, and manuals. Be aware of and comply with all federal, state, local, ANSI, OSHA and other codes and regulations.
- Keep your body centered on the ladder. Hold the ladder with one hand while working with the other hand whenever possible. Never let your belt buckle pass beyond either ladder rail.
- Move materials with extreme caution. Be careful pushing or pulling anything while on a ladder. You may lose your balance or tip the ladder.
- Get help with a ladder that is too heavy to handle alone. If possible, have another person hold the ladder when you are working on it.
- Climb facing the ladder. Center your body between the rails. Maintain a firm grip.
- Always move one step at a time, firmly setting one foot before moving the other.
- Haul materials up on a line rather than carry them up an extension ladder.
- Use extra caution when carrying anything on a ladder.

"Don'ts"

- DON'T stand above the highest **safe standing level**.
- DON'T stand above the second step from the top of a stepladder and the 4th rung from the top of an extension ladder. A person standing higher may lose their balance and fall.
- DON'T climb a closed stepladder. It may slip out from under you.
- DON'T climb on the back of a single-sided stepladder. It is not designed to carry a person's weight.
- DON'T stand or sit on a stepladder top or pail shelf. You could easily lose your balance or tip the ladder.
- DON'T climb a ladder if you are not physically and mentally up to the task.

- DON'T exceed the Duty Rating, which is the maximum load capacity of the ladder. Do not permit more than one person on a single-sided stepladder or on any extension ladder.
- DON'T place the base of an extension ladder too close to the building as it may tip over backward.
- DON'T place the base of an extension ladder too far away from the building, as it may slip out at the bottom. **Set the ladder at a 75-1/2° angle**.
- DON'T over-reach, lean to one side, or try to move a ladder while on it. You could lose your balance or tip the ladder. **Climb down and then reposition the ladder closer to your work!**

LAWNMOWER SAFETY

Walk-Behind Mowers

- Fill the fuel tank before starting the engine to cut the lawn. Never refuel the mower when it is running or while the engine is hot.
- Check the lawn for debris (twigs, rocks and other objects) before mowing the lawn. Objects have been struck by the mower blade and thrown out from under the mower, resulting in severe injuries and deaths.
- If possible, avoid cutting the grass when it's wet. Wet clippings will probably clog the discharge chute, ultimately could jam the rotary blade and shut down the engine. When you need to remove clippings from the chute, the rotary blade must be stopped.
- Wear sturdy shoes with sure-grip soles when using the mower, never sneakers, sandals or with bare feet. Slacks rather than shorts offer better protection for the legs.
- Children should not be allowed on or near the lawn when the rotary mower is in use. Push the mower forward, never pull it backward.
- If the lawn slopes, mow across the slope with the walk-behind rotary mower, never up and down.
- Don't remove any safety devices on the mower. Remember that the safety features were installed to help protect you against injury. Check safety features often and repair or replace if needed. The catcher assembly or the guard must be in place when mowing.
- Read the owner's manual to become familiar with the workings of the machine. Keep the manual in a safe place so it will be handy when you need it the next time.
- Check the manual for hints on performing routine maintenance, checking engine oil levels and fluid in powered wheel drives, and performing maintenance when the mower is stored during the off-season.

Riding Mowers

Hazards most often associated with riding equipment are blade contact and loss of stability. Fatal accidents have several common patterns: the machine tips over, the victim falls under or is run over by the machine (accidents involving young children fall in this category), or the victim is thrown from or falls off the machine.

Safe Operating Practices

1. Read, understand, and follow the safety and operating instructions that are in the manual and on the unit.
2. Allow only responsible adults who are familiar with the instructions and with proper operating procedures to operate the machine.
3. Clear the mowing area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
4. Be sure the area is clear of other people before mowing. Stop the mower if anyone enters the area.
5. Never carry passengers.
6. Do not mow in reverse unless absolutely necessary. Bring the machine to a full stop before shifting to reverse. Always look behind before and while operating in reverse.
7. Be aware of the discharge direction and do not point it at anyone.
8. Slow down before turning.

9. Never leave a running machine unattended. Always turn off the blades, set the parking brake, stop the engine, and remove the keys before dismounting.
10. Turn off blades and attachments when not mowing.
11. Stop the engine before removing the grass catcher or unclogging the chute.
12. Mow only in daylight or good artificial light.
13. Watch for traffic when operating near or crossing roadways.

Slope Operation

Slopes are a major factor related to tip over and loss of control accidents, which can result in severe injury or death. All slopes require extra caution.

DO

- Mow up and down slopes, not across.
- Remove obstacles such as rocks, downed tree limbs, etc.
- Watch for holes, ruts or bumps. Uneven terrain could cause the mower to overturn. Tall grass can hide obstacles. Use slow speed. Shift into a lower gear before going on a slope. Choose a low enough gear so that you will not have to stop or shift while on the slope.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
- Use extra care with grass catchers or other attachments. These can change the stability of the mower.
- Empty grass catcher bags when they are only partially full.
- Keep all movement on slopes slow and gradual. Avoid sudden changes in speed and direction.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades, and proceed slowly straight down the slope.

DO NOT

- Do not turn on slopes unless unavoidable; then, with the blades) disengaged, turn slowly and gradually downhill.
- Do not mow near drop-offs, ditches, or embankments. A wheel over the edge or an edge caving in could cause sudden overturn.
- Do not mow on wet grass. Reduced traction could cause sliding.
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not use a grass catcher on steep slopes or rough terrain.

Service

1. Use extra care in handling gasoline. It is flammable, and the vapors are explosive.
   - Use only an approved container.
   - Never remove the gas cap or add fuel with the engine running. Allow the engine to cool before refueling.
   - Never refuel the machine indoors.
   - Never store the machine or gasoline container inside the house where there is an open flame, such as a gas water heater.
   - Always clean up spilled gasoline.
2. Never run a machine inside a closed area without good ventilation.
3. Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
4. Never tamper with safety devices. Check their operation regularly.
5. Keep the machine free of grass, leaves, and oil build-up to prevent fire.
6. Stop and inspect the equipment if you strike an object. Repair if necessary before restarting.

7. Never make adjustments or repairs with the engine running.
8. Grass catcher components are subject to damage and deterioration. To reduce the thrown object hazard, periodically check and replace with manufacturer's recommended parts, when necessary.
9. Mower blades are sharp and can cut. Wrap the blades or wear gloves and use extra caution when servicing them.
10. Check brake operation frequently. Adjust and service as required.

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the mower and the mowing activity. Never assume that children will remain where you last saw them.

1. Keep small children out of the mowing area, preferably indoors under the watchful care of an adult other than the operator.
2. Be alert and turn the mower off if children enter the area.
3. Before and when operating in reverse, look behind and down for small children.
4. Never carry children. They may fall off and be seriously injured or interfere with safe mower operation.
5. Never allow children to operate the mower.
6. Use extra care when approaching corners, shrubs, and trees.

LIFTING

General Rules

- Avoid manual lifting whenever possible. Manual lifting is one of the most common causes of workplace injury. If you are doing manual lifting, you are at risk for injury. Use mechanical means when possible.
- Do not lift or carry beyond your physical capabilities.
- The closer the object, the easier it is to lift.
- If the object is difficult to move, use a lifting aid or get help from another employee.
- Avoid twisting or jerking as you lift.
- Good firm footing is a must.
- Make sure your hands or gloves are free of grease or moisture.

Procedure for Lifting Safely

1. Make sure you have plenty of room to lift the object. Check to see that nothing blocks the path to your destination. Prop doors open or ask someone to hold them. Avoid slippery or uneven surfaces.
2. Size up the load. Push the object lightly or lift a corner to get a sense of its weight. If it's too heavy break it down into smaller loads; get help; or use a mechanical aid such as a hand truck. Make sure the contents won't shift. Get help with awkward loads or loads that block your vision.
3. Stand as close to the load as possible. Face it squarely. Bend your knees, not your waist. Keep your back as straight as possible.
4. Lift slowly and steadily, keeping the load as close to your body as possible. Use your legs, not your back. Avoid twisting as you lift. Keep your head up. Breathe out.
5. Hold the load close to your body, between your shoulders and waist. Keep your back straight or slightly arched. Walk slowly and maintain firm footing. Use your feet to change direction. Avoid twisting at the waist.
6. To set the object down, move as close as possible to where you want to place the object. Squat down to lower the object, using your legs. Avoid twisting and bending at the waist. Keep your head up. Let go only when the object is down and hands and toes are clear.

LOCK OUT/TAG OUT

Lockout/Tagout is the method used to isolate and/or eliminate all potential power sources to equipment while it is being serviced. An employee performing the work places a lock and a tag at any point where the equipment can be turned on or where any stored energy can be released. This keeps the equipment from being turned on during the repairs or maintenance helping prevent injury to employees due to the unexpected release of energy.

This procedure is to be followed by the person performing the work whenever an employee is required:

- To remove or bypass safety guards or safety devices.
- To place any part of the body into an area or machine where work is being performed, such that any part of the body might be caught by moving machinery.
- Whenever service or maintenance is being performed on or around any machine where injury could result from unexpected start-up or the release of stored energy.

Lockout/Tagout is not required when maintenance is being performed on cord and plug connected equipment for which exposure to the hazards of unexpected energerization of the equipment is controlled by the unplugging of the equipment from the energy source, and with the plug being under the exclusive control of the employee performing the servicing or maintenance.

Procedures

1. Locate and identify all energy sources and their isolating devices before servicing the equipment. Remember, more than one hazardous energy source and/or means of disconnect may be
2. involved.
3. Check to make sure no one is operating the equipment before turning off the power. Notify affected employees that a lockout/tagout procedure is going to be utilized and for which specific equipment.
4. Shut down the machine or equipment by normal stopping procedure at the point of operation control. In addition, make sure that all stored energy is dissipated or controlled.
5. Isolate the equipment by:
6. Shutting off the main breaker or control switch
7. Closing valves
8. Disconnecting process lines
9. Pulling plugs

5. Attach the lock and tag. Each employee who is performing maintenance is responsible for locking and tagging the equipment. Each employee whose duties require them to work on equipment must be provided with their own lock and key that is identified with the employee's name or identification number. When all energy sources are locked, apply a tag to the power source. Make sure the tag is filled out completely and correctly.
6. After locking and tagging equipment and after ensuring that no personnel are exposed, make sure that any stored energy on the equipment is released. This is done by:

- Inspecting equipment to make sure all parts have stopped moving
- Bleeding electrical capacitance (stored charge)
- Venting or isolating pressure or hydraulic lines from the work area, leaving the vents open
- Draining tanks and valves

- Blocking or bracing parts that could fall because of gravity
- Blocking, clamping or chaining any switches or levers that could be moved into the start position
- Clearing lines containing process materials that are toxic, hot, cold, corrosive or asphyxiating

7. Test equipment to verify that all energy has been released or controlled. You must:

- Clear personnel from danger areas
- Test the start switches on the equipment to confirm that all power sources have been shut down and switches can't be moved to the "on" or "start" position
- Check pressure gauges to make sure all lines are de-pressurized
- Secure all blocks, clamps, and chains
- Check electrical circuits to make sure that voltage is zero

8. Once you have confirmed that all energy sources have been controlled and locks and tags are in place, it is safe to begin the maintenance work. While working, avoid any actins that cold re-activate the equipment.

Safe Startup Procedures

Once the maintenance is completed, the equipment can be re-started.

1. Make sure the area is safe for restart by:

- Making sure all equipment components are fully assembled and operational
- Making sure all safety guards are in place
- Removing all tools from the equipment
- Removing all braces, blocks, etc
- Reconnecting pressure tubing, pipes and hoses and closing all valves
- Clearing the work area of personnel

2. Remove lockout devices and tags. Except in emergencies, each lockout device must be removed by the employee who put it on.
3. Notify all personnel in the area that maintenance is complete, lockout/tagout has been removed and the equipment is ready to be re-started.
4. Start up the equipment.

Lockout Devices:

- Must be provide to each employee performing work
- Must only be used for the purposes of lockout/Tagout
- Must be able to withstand the environment that they are exposed to
- Must be standardized by color, shape and size

Tagout Devices:

- Must be standardized by color, shape, size and format or print
- Must contain warnings such as "DANGER-DO NOT OPERATE THIS MACHINE"
- Must have space for the name of lock or tag owner, date and purpose of the lockout/tagout

MATERIALS HANDLING

Manual materials handling is the using any part of the body to lift, move, retrieve, carry, or climb with any materials such as inventory, merchandise, tools, raw materials, or supplies found in the work environment.

Identify jobs or tasks which may have manual materials handling issues through a review of accident and injury logs and/or by basic knowledge of the job. Look for risk factors that commonly may cause back injuries, sprains and strains, or shoulder and neck injuries.

Guides for Materials Handling

- Weights greater than 50 pounds for men and 30 pounds for women are usually excessive.
- Convert lifts, lowers, and carries to pushes and pulls by using platform lifts and conveyors. Compared to lifting, individuals can handle approximately 40% more weight when carrying, and 400% more when pushing.
- Mid-range height (between the knuckles and shoulders) is the best height for manual handling. Handling at waist level is most efficient.
- Pushing is preferable to pulling.
- Wheels and casters on hand trucks and carts should be as large as practical, have good bearings, be compatible with the surface over which they travel, and be properly maintained (cleaned, lubricated and replaced as necessary).
- Do not set something on the floor that has to be picked up again later.
- At workstations and work areas, keep all materials to be handled within easy reach.
- Handle objects close to the body. Avoid reaches and use mechanical assists for large or awkward objects.
- Sudden forces are also significant low back pain risk factors. These can occur when jerking at a stuck load to pick it up or get it moving, when a load slips because of a lack of a good handhold, and when trying to catch a falling load or object.
- Decrease the object weight by assigning job to two or more persons, distributing the load into two or more containers or by reducing container weight.

Minimize Stressful Body Movements

Reduce bending motions by:

- Changing height of work level
- Providing all materials at work level
- Not using deep shelves
- Locating objects with arm's reach

Reduce twisting motions by:

- Locating objects within arms reach
- Providing sufficient workspace for entire body to turn
- Providing seated employees with swivel chairs

Allow safe lifting to occur by:

- Allowing object to be handled close to body
- Using handles or hooks
- Balancing contents of the container
- Providing a rigid container
- Not having employee lift excessively wide or heavy objects from the floor

MOTOR VEHICLE SAFETY

Driver Responsibilities

- Driver must hold a valid drivers license
- Operate the vehicle at all times in a safe driving manner
- Obey all traffic laws
- Take every precaution to avoid abuse, theft, or neglect of the vehicle
- Use seat belts at all times
- Do not operate a vehicle with any defect that would inhibit safe vehicle operation
- Report accidents immediately to your supervisor
- Do not operate any vehicle when your ability has been impaired, diminished, or adversely affected by the use of alcohol, drugs, or medication
- Employees operating ESD 112 vehicles are required to complete a defensive driving course within six months of employment

Preventable Accidents

Most accidents are preventable. It is the driver's responsibility to exercise every reasonable precaution to prevent accidents. An accident is preventable if the driver:

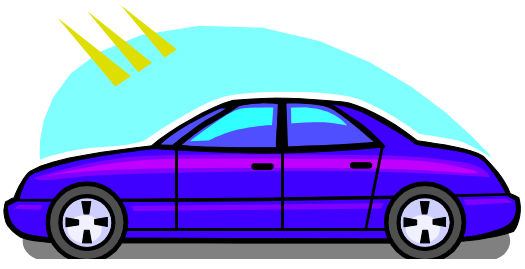
- Follows too closely
- Drives too fast for road and weather conditions
- Fails to obey traffic signs or directions
- Improperly turns
- Fails to observe signals of other drivers
- Fails to use turn signals
- Fails to reduce speed
- Improperly parks
- Improperly passes
- Fails to yield the right of way
- Improperly backs
- Operates a motor vehicle with known mechanical defects

Inspection

A walk around inspection will help insure a safe vehicle. Many problems can be spotted and corrected before they become a serious deficiency.

Look for:

- Oil, water and fuel leaks when you park
- Tire properly inflated
- Irregular wear on tires
- All lights are working correctly
- Cracks in windshield or other glass
- Mirrors properly adjusted for the driver
- Spare tire available and inflated
- Windshield wipers clear work properly
- Emergency kit is in vehicle



PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personal protective equipment is equipment or a device (such as a shield or barrier) that protects a worker's body from hazards and any harmful conditions (existing and potential) that may result in injury, illness, or possible death.

Required PPE depends on the hazards present in the work environment. A hazard assessment of the work environment is the first step in determining your PPE needs.

Note: All PPE must be ANSI approved.

Eye and Face Protection

Types: Safety glasses, safety goggles, face shield and welding shields

Eye and face protection must be worn when machines, operations, (e.g., welding, grinding) or conditions present potential eye or face injury from physical, chemical, or radiation agents.

- Dust and other flying particles, such as metal shavings or sawdust
- Molten metal that might splash
- Acids and other caustic liquid chemicals that might splash
- Blood and other potentially infectious body fluids that might splash, spray, or splatter
- Intense light such as that created by welding and lasers

Eye and face protection must meet the requirements specified in ANSI Z87.1.

Head Protection

Type: Hard hats

Hard hats are required whenever injuries could be caused by:

- Falling objects
- Bumping head against fixed objects, such as exposed pipes or beams
- Contact with exposed electrical conductors

Hard hats must meet the requirements specified in ANSI Z89.1.

Hand Protection

Types: Gloves

Gloves should be worn when there is danger of incurring:

- Thermal burns
- Abrasions
- Cuts, lacerations
- Punctures
- Temperature extremes
- Chemical burns
- Adsorption of chemicals

Appropriate gloves are to be worn in response to specific hazards. Make sure they are:

- The right glove for the job
- Sized correctly and fit comfortably
- Inspected before each use
- Discarded if damaged or contaminated

Foot Protection

Types: Steel-toed shoes, rubber boots, chemically resistant boots

Foot protection should be worn when the following hazards are present:

- Heavy objects such as barrels or tools that might roll onto or fall on employees' feet
- Sharp objects such as nails or spikes that might pierce the soles or uppers of ordinary shoes

- Hazardous chemicals that might splash on feet
- Hot or wet surfaces
- Slippery surfaces
- Cold weather conditions

Respiratory Protection

Types: Full-face, half-mask, filtering face-piece (disposable) respirators

Respirators may be required when there is the possibility of:

Inhalation of airborne dusts or particulates
- Inhalation of chemical vapors or fumes

Respirator use requires medical clearance and specific training.

Body Protection

Types: Long-sleeve shirts and long pants, chemical-resistant clothing, flame-retardant clothing, cooling vests, insulated outer wear, high visibility vests, aprons, coveralls, knee pads, chaps

These kinds of hazards require specific clothing needs:
- Intense heat
- Splashes of hot metals and other hot liquids
- Impacts from tools, machinery, and materials
- Cuts
- Hazardous chemicals
- Contact with potentially infectious materials, like blood
- Welding hazards
- Bugs, plants and animals

Hearing Protection

Types: Ear plugs, ear muffs

Ear plugs and/or ear muffs shall be used when the presence of machinery or equipment creates a noise level of over 85 decibels. Examples of when hearing protection should be worn includes: working around heavy equipment, grinders and power equipment such as chain saws, grounds maintenance equipment (mowers, blowers) and woodworking tools (table saw, circular saw).

PPE Maintenance and Inspection

All PPE must:
- Be properly maintained according to manufacturer's suggested specifications
- Be periodically inspected for defects and damage
- Be cleaned regularly and thoroughly
- Function properly
- Be in serviceable condition

Note: Any PPE that does not meet the above criteria must be repaired or replaced.

Training Requirements

Employees required to use PPE must be trained to know at least the following:
- When PPE is necessary
- What type of PPE is necessary
- How to properly put on, take off, adjust, and wear
- Limitations of the PPE
- Proper care, maintenance, useful life and disposal

POWER TOOLS

Personal protective equipment

Power tools present more hazards than hand tools due to the speeds at which they operate. Although personal protective equipment is similar, there are distinct differences between what is worn by the operator of a power tool compared to one using hand tools.

Eye protection is especially important to wear. Drills, saws, grinders, sanders, routers and other tools operate at high speeds and can propel small particles very quickly over considerable distances. Others working near the area where a power tool is operating should also wear protective eyewear.

Certain power tools may require the donning of a face shield in addition to glasses or goggles. For example, due to the amount of hot metal particles a grinder generates, a face shield would be warranted.

Standard cotton or leather work gloves can prevent minor scrapes and cuts from the handling of material. Cut-resistant gloves, however, are not designed for or even capable of protection against a moving blade or bit. Hands must be kept on the tools' handles with guards in place.

The vibration created by hammer drills and rotary hammer drills can be minimized with anti-vibration gloves.

The use of safety shoes is recommended with the heavier weights of power tools as well as the material that they can cut. Safety shoes with a non-slip, insulated sole and steel toe protects against dropped objects and misdirected electricity.

The higher sound levels generated by some power tools—especially if used over extended periods of time— may require the use of earplugs or earmuffs to protect the user's hearing.

The use of a dust respirator may be necessary in sanding and cutting operations.

Each situation must be analyzed to determine the extent of personal protective equipment required.

In conjunction with personal protective equipment, attention should also be placed on proper dress. To avoid the potential of being caught in a moving part of a tool, clothing should not be loose. Hair, if worn long, should be tied back or covered for the same reason and jewelry should be removed.

Proper work practices

Portable power tools are designed for a wide variety of uses. Circular saws, jigsaws, drills, hammer drills, sanders, grinders and routers can increase the amount of work that we accomplish. The growing popularity of cordless battery operated tools is putting power tools to use in more places than ever before. The increased use of these tools brings about an awareness of the danger they present if not operated properly. Each type of tool has its own unique hazards.

The following is listing safety rules common to all power tools:

- Read the owner's manual to understand the tool's proper applications, limitations, operation and hazards.

- Do not use power tools around wet environments or flammable vapors, dusts or construction materials.
- Protect from electric shock by ensuring the tool is properly grounded and use a ground fault circuit interrupter (GFCI) for corded tools. Always check for hidden wires that may contact your tool's blade.
- Only use the tool for the task it is designed to do. Only use attachments specifically recommended for your power tool and ensure their proper installation.
- Inspect the tool for any damage, including the cord, plug, presence of guards, correct alignment, binding of components or any condition that would affect the operation of the tool. If an unsafe condition is present or develops while in use, have the tool serviced.
- Avoid excessive force to make the tool cut faster. Feed material only as fast as the tool is designed to accept to prevent excessive wear and decreased control.
- Keep others away from the work area or provide shields to stop flying debris and other distractions.
- Always keep control of the tool by maintaining your balance. Do not overreach and tightly grip the tool.
- Do not operate a power tool if under the influence of medications or alcohol or if tired or distracted.
- Secure the work in a vise or clamp for increased stability. Use the tool's side handle for better control.
- Verify tool is unplugged or power removed when changing blades, providing maintenance or when not in use. Be sure adjustment knobs are tightened and remove any adjustment keys before use.
- Keep tools in case and in a secure location when not in use.
- Avoid unintentional starting of a tool by keeping your finger off the switch.
- All rotating shafts, spindles, belts, fittings, and other projections must be guarded.
- Machinery intended for stationary use must be secured from tipping over.
- Do not hoist or lower tools using the cord.

Fuel powered tools:

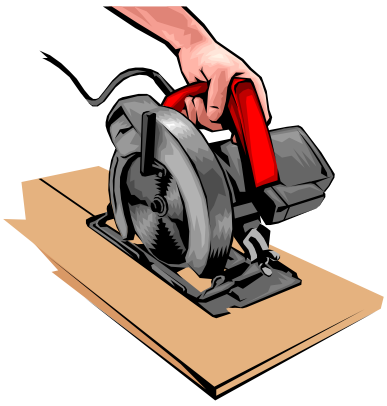
- Stop tool and allow to cool before refueling or servicing
- Transport fuel in an approved container
- Do not use for extended periods in an enclosed space (possible high carbon monoxide levels)

Abrasive wheels:

- Guards must be in place
- Ring test when changing wheel
- Safety glasses and face shield at a minimum
- Must have safety guards that expose only the proper amount of the wheel surface

For bench grinders:

- Tool rest must be kept within 1/8 inch of the grinding wheel
- Tongue guard within ¼ inch of the grinding wheel



RESPIRATORY PROTECTION

Engineering controls are the first and best option! Try to remove the hazard through ventilation, substitution of less hazardous chemicals, or other means before putting on a respirator.

Examples of maintenance and custodial activities in schools where employees may be exposed to potentially toxic environments, and respiratory protection may be required, include (but are not limited to) the following:

- cleaning, finishing, sanding, or buffing floors
- blowing down heaters or air handlers
- applying pesticides, herbicides, or fertilizers
- spray painting
- welding
- spray application of sealant
- septic work
- remediation work for indoor air quality problems
- performing asbestos abatement activities or working with known or suspected asbestos containing materials

Note: We anticipate no emergency situations that require respiratory protection. In the event of an emergency, staff and students should evacuate the building and not enter any hazardous area. No employee will attempt an emergency rescue in a potentially dangerous environment. No employee will work in atmospheres that are immediately dangerous to life and health.

Before You Wear A Respirator You Must:

- Have received proper training on the care, use, maintenance, storage and inspection of respirators
- Have received training on the identification of respiratory hazards and proper respirator selection
- Have received a medical evaluation
- Have received a fit test (for required use)

Voluntary Use of a Respirator

If you choose to voluntarily use a respirator (whether it's provided by you or your employer), be aware that **respirators can create hazards for you**, the user. You can avoid these hazards if you know how to use your respirator properly **and** how to keep it clean. Take these steps:

- Read and follow all instructions provided by the manufacturer about use, maintenance (cleaning and care), and warnings regarding the respirator's limitations.
- Choose respirators that have been certified for use to protect against the substance of concern. The National Institute for Occupational Safety and Health (NIOSH) certifies respirators. If a respirator isn't certified by NIOSH, you have no guarantee that it meets minimum design and performance standards for workplace use. A NIOSH approval label will appear on or in the respirator packaging. It will tell you what protection the respirator provides.
- Keep track of your respirator so you don't mistakenly use someone else's.

Do **not** wear your respirator into:

- Atmospheres containing hazards that your respirator isn't designed to protect against.

  For example, a respirator designed to filter dust particles won't protect you

against solvent vapor, smoke, or oxygen deficiency.

- Situations where respirator use is required.

Examples of Respirators

Filtering facepiece (disposable)

Half-facepiece respirator

Full-facepiece respirator

SCAFFOLDS

Definitions

Scaffold: Any temporary elevated platform and its supporting structure used for supporting employees, materials or both.
Platform: A work surface elevated above lower levels. Platforms can be constructed using individual wood planks, fabricated planks, fabricated decks, and fabricated platforms.
Guardrail: A vertical barrier erected to prevent employees from falling off a scaffold platform or walkway to lower levels.
Toeboard: A barrier installed at the outermost edge of a walking/working surface to prevent objects from falling onto workers below.
Walkway: A portion of a scaffold used only for access and not as a work level.
Brace: A rigid connection that holds one scaffold member in a fixed position with respect to another member, or to a building or structure.

General Guidelines

Capacity:

- Each scaffold shall be capable of supporting four times the maximum intended load.
- Scaffolds will be designed by a qualified person and constructed and loaded in accordance with that design.

Planks:

- Use scaffold grade planks, fabricated plank, or fabricated deck.
- Planks on platforms shall be overlapped a minimum of 12 inches or secured from movement.
- Scaffold planks shall extend over end supports a minimum of 6 inches and a maximum of 12 inches.
- Space between planks is no more than 1 inch unless wider space is necessary to fit around uprights or other components. These spaces shall not be more than $9\ _{1/2}$ inches wide.
- Each scaffold platform and walkway shall be at least 18 inches wide.
- Wood platforms shall not be covered with opaque finishes, except on platform edges where marking can be done for identification.

Guardrails:

- Installed on all open sides and ends on all scaffolds more than 10 feet above ground or floor.
- Made of 2 x 4s – 42 inches high with a midrail.
- Distance between vertical shall not exceed eight feet.
- Toeboards are four inches high.

Bracing:

- Tied to and securely braced against the building at intervals not to exceed 30 feet horizontally and 26 feet vertically.
- First tie off at a height equivalent to 4 times the base dimension.
- Always plumb, square and rigid.
- Supported scaffold poles, legs, posts, frames, and uprights must bear on base plates resting on adequate firm foundation.
- Footings must be level, sound, and rigid and capable of supporting the loaded scaffold.

Access:

- An access ladder or equivalent safe access shall be provided.

- Climbing crossbraces must not be used as a means of access or egress.

Mobile Scaffolds:

- The height must not exceed four times the minimum base dimension.
- All casters or wheels must be locked to prevent movement of the scaffold while the scaffold is used in a stationary manner.
- Employees shall not ride on the scaffold

Fall Protection:

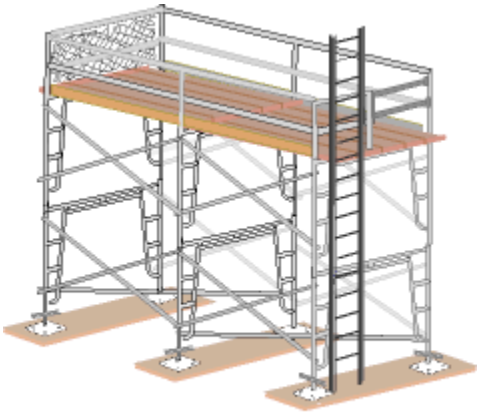
- Each employee on a scaffold 10 feet or more above a lower level must be protected from falling by fall arrest or fall restraint systems.

Use:

- Scaffolds and scaffold components must not be loaded in excess of their maximum intended loads or rated capacities, whichever is less.
- Scaffolds and scaffold components must be inspected for visible defects by a competent person before each work shift.
- Any damaged scaffold component must be replaced or repaired immediately or removed from service until repaired.
- Extreme caution must be used when working near exposed and energized power lines.
- Do not work on scaffolds that are covered with ice, snow or other slippery material.
- Work on scaffolds is prohibited during storms or high winds.
- Debris must not be allowed to accumulate on platforms.

Training:

- Each employee who performs work while on a scaffold must be trained by a person who is qualified to recognize the hazards of scaffold use and can understand the procedures to control or minimize those hazards.
- Each employee who is involved in the erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold must be trained by a qualified person.



SLIPS AND FALLS

In the United States, slips and falls result in 15% of all accidental workplace deaths and 16% of accidents resulting in disability. Slips result in head or back injuries, lacerations, fractures, pulled muscles and deep contusions. Loss of traction causes most slips. Most trips happen when feet encounter something that shouldn't be on the floor.

Here are several common-sense tips to keeping floors safe:

- Clean up spilled liquids or tracked-in water immediately by mopping or using an absorbent material.
- Prevent spills by covering all liquids. If a container, such as a pail, can't be covered, don't fill it to the top.
- Report to maintenance any loose or missing tiles, warped or cracked flooring, and turned up rugs.
- Sweep up loose debris. Put trash in the trash bins.
- Properly store tools that aren't in use.
- Inspect flooring surfaces for holes, chips or other trip hazards and make necessary repairs.
- Securely attach rugs and runners to the floor.
- Hold down cables and cords with rubber coverings or reroute them.
- Tape down and mark temporary cords and cables.
- Inspect the grounds and parking lots for trip hazards and make necessary repairs.
- Select a floor cleaner that enhances slip resistance and does not leave a slippery residue.
- Use warning signs, safety cones or barricade tape if you notice hazards such as broken, protruding or loose debris in walkways, or newly waxed or mopped floors.
- Mats may provide a way to reduce slip hazards when keeping the floor dry is difficult, such as in the kitchen area or at building entrance and exit areas where there can be constant traffic of wet shoes from rain or snow. Be careful- mats can become tripping hazards themselves. Use mats with beveled, colored borders that alert persons that they are approaching a different floor surface or level of flooring.

Workers can reduce the risk of slipping or tripping by:

- Taking their time and paying attention to where they are going
- Adjusting their stride to a pace that is suitable for the walking surface and tasks being performed
- Making wide turns at corners
- Wiping feet on entrance mats when it is raining, snowy, icy or muddy outside
- Walking carefully on waxed floors
- Paying attention when flooring is uneven, changes level or changes surface (for example, from flooring to carpeting)
- Turning on lights before entering an area. If entering a dark area with no lights, use a flashlight and walk slowly
- Replacing used bulbs and repairing faulty switches
- Sticking to proven pathways and not taking shortcuts
- Not carrying a load that blocks your vision
- When using stairs, be sure to always use the handrail, take steps one at a time and make sure your forward foot is firmly planted before you shift your weight.

UTILITY KNIVES

Utility knives are called that for two reasons: they can be applied to a wide variety of tasks, and when a blade gets dull there's no need to stop for sharpening. Just remove the dull blade and replace it with a new one.

Utility knives are designed for safety, but no design is foolproof. The blades should be retracted all the way into the body when not in use, but they can be accidentally or inadvertently exposed, and that can lead to cuts and puncture wounds. Anyone who has ever pocketed a utility knife that they mistakenly thought was closed will probably have a cautionary tale to tell you.

Self-retracting utility knives add an important safety feature to the design. Like standard utility knives they can adjust quickly to different cutting depths and will let the blade retract completely into the handle when not in use. The difference is that the spring-loaded blades are pushed out of the knife body with finger pressure and then retract automatically when the pressure is released.

Here are some safety tips that apply when using any utility knife:

- Before starting, be sure that your blade is properly seated and that the knife is properly closed.
- Always use a sharp blade. Dull blades require more force and are more likely to slip than sharp ones. Change your blade whenever it starts to tear rather than cut.
- Protect your eyes. Wear safety eyewear when you are working with any hand tools, including knives.
- Always keep your free hand away from the line of cut.
- When making cuts on a surface below you, stand or kneel to one side of the line of the cut.
- Always pull the knife toward you when making a cut on a flat surface. Because pulling motions are stronger and more positive than pushing motions, your knife is less likely to slip.
- When using a straight edge to guide a cut, either clamp it down or keep your free hand well away from the cutting path of the knife. Be sure the straight edge is thick enough to prevent the knife from "riding up" over the edge.
- Utility knife blades are brittle and can snap easily. Don't bend them or apply side loads to them by using them to open cans or pry loose objects.
- Patience pays off when using a knife to cut through thick materials. Make several passes, cutting a little deeper into the material with each pass.

Many tasks require a knife edge but not a sharp point. For these tasks you can add protection against puncture wounds by using a rounded-tip blade.

WELDING SAFETY

Welders should never carry or use butane lighters while welding! A spark from a welding arc can penetrate the pocket, land on the lighter, burn through and thus expose the fluid in the lighter, and an explosion occurs. There is the same amount of force in a disposable butane lighter when it explodes as there is in approximately 3 sticks of dynamite!

Familiarize yourself with the manufacturer's instructions for the safe operation of all welding and cutting equipment.

Check all equipment before putting it into operation to make sure it is in safe condition.

Always wear protective clothing suitable for welding. Wear protective gloves, sleeves, aprons and shoes to protect the skin and clothing from sparks and slag. Wear goggles with tempered, shaded lenses to protect your eyes from injury. Always wear proper ear protection when grinding, or cutting.

Do not wear clothing that is saturated with oil or grease.

Shield others from the light rays produced by your welding arc.

If and whenever practical, work in an area free from combustible materials. Sweep the floor clean of all debris before lighting the torch.

Never weld or cut near explosive or combustible materials. Move all combustible materials at least 30 to 40 feet away from the welding area.

If you can't move it…cover it! Protect combustibles from stray slag and sparks.

Have a fire extinguisher of the proper size and type in the work area. Inspect it regularly to ensure that it is in proper working order. Know how to use it.

Handle all compressed gas cylinders with extreme care. Keep caps on when not in use.

Never leave pressure on unattended regulators.

Do not weld on containers that have held combustibles without taking extra special precautions.

Do not allow flame cut sparks to hit hoses, regulators or cylinders. Remember flame cutting sparks can travel 30-40 feet.

Never use acetylene at a pressure in excess of 15 p.s.i. Higher pressures can cause can explosion.

Never use oil, grease or any similar material on any apparatus or threaded fittings in the oxyacetylene or oxy-fuel gas system. Oil and grease in contact with oxygen will cause spontaneous combustion.

Use adequate ventilation at the point of welding when welding lead, cadmium, chromium, manganese, brass, bronze, zinc, galvanized steel or other materials that an produce noxious gases.

Nearly all gas welding fluxes and arc welding fluxes are toxic or at least can cause allergies to certain persons. Do not take welding fluxes internally and keep out of reach of children.

When the work is done, inspect the area for possible fires or smoldering materials.

HOT WORK- PERMITTING & INSPECTION

Procedure

1. No cutting, welding, grinding, or other activities that generate excess heat and sparks, is allowed without a Hot Work Permit, available from the maintenance department.

2. The supervisor (or designee) of the employee performing the hot work will fill out and sign the permit.

3. The person performing the hot work must also sign the permit.

4. Any special provisions must be written on the permit.

5. The permit must be issued on a daily basis.

6. The work may be started only after the provisions on the permit have been fulfilled and checked by the supervisor (or designee) signing the form.

7. After completion of the work, the permit must be returned to the supervisor (or designee) and the time of completion recorded on the permit with the worker's signature.

8. The permit must be kept on file.

All flammable and combustible materials must be moved at least 35 feet from the location of the hot work. If the flammable or combustible material cannot be moved, and the work cannot be moved, guards shall be used to confine the heat, sparks, and slag, to protect the immovable fire hazards.

If hot work must take place in the vicinity of flammable or combustible materials (i.e., closer than 35 feet), suitable fire extinguishing equipment shall be maintained in a state of readiness for instant use. In addition, a fire watch shall be required whenever hot work is performed in these areas.