SECTION 5

GENERAL SAFETY RULES

THE FOLLOWING GENERAL SAFETY RULES APPLY TO ALL CITY PERSONNEL THESE RULES DO NOT PROHIBIT DEPARTMENT AND DIVISION HEADS FROM PROMULGATING MORE STRINGENT OR SPECIFIC RULES AND REGULATIONS RELEVEANT TO THEIR PARTICULAR OPERATION.

Each and every employee has an obligation to perform their duties in a safe and efficient manner and to report any and all unsafe acts or situation to their supervisor immediately.

In addition to these general safety rules, all State local and Federal rules and regulations apply.

A. General Housekeeping

Good housekeeping shall be of primary concern to all employees.

The following rules shall be observed by **ALL EMPLOYEES:**

- Good housekeeping practices shall be a part of the daily routine, with cleanup being continuous procedure.

- Aisles and passage-ways will not be used for the storage of hand trucks, stock, equipment or materials.

- Oil, grease, or other liquids when spilled on the floor or work surface should immediately be wiped up or sprinkled with absorbent floor material. Spill areas should be marked and barricaded.

- Gather up tools and return them to their proper place. Make sure that no tool or other appliance has been left in any machine or other place where it might fall or cause damage when the power is tuned on.

- Return all surplus materials to stock or storage areas.

- All employees are required to keep the work area to which they are assigned clean and neat. Keep all tools and equipment in a safe, orderly manner.

- Welding leads, electric, steam, and air lines should be kept off floors by use of trees and hooks wherever possible.

- Scrap material and rubbish shall be place only in containers provided for that purpose.

- Metal stock, lumber, and cased or crated goods should be stored in a neat safe, and orderly manner. Round stock should be blocked to prevent rolling, gas cylinders secured by chains in an upright position and tiered material cross tied.

- **DO NOT** hang clothing, towels, rags, or other combustible materials on radiators, hot lines, or near floors or hot surfaces.

B. Office Safety

The following guidelines shall be observed by all City employees.

- Good housekeeping is a must in every office

- Horseplay is unacceptable.

- If you spill or observe spilled liquids on the floor, arrange for cleanup immediately to prevent a slip or fall.

- Pick up any items that have fallen on the floor as they could easily be the cause of a slip or fall accident.

- All defective equipment should be immediately reported to a supervisor. The supervisor is responsible to take steps to correct the unsafe condition.

- Desk and cabinets should be kept clean and orderly.

- An open drawer of a desk or cabinet is a hazard which can cause trips or falls. Keep drawers and cabinets doors closed.

- Use handles when closing desk drawers, file cabinets safes, and doors. Avoid curling fingers around tops and sides of drawer where they may be cut or injured when closing the drawer.

- Position all desk equipment to allow a 2 inch border at the edge of the desk. This will help prevent items from falling to the floor where they can be tripped/slipped on or damaged.

- All chairs should be used for sitting only. Do not lean back to the extent that the front legs are lifted off the floor. Notify maintenance of any observed defect in any office furniture.

- Carry pencils, scissors, and other sharp objects with the point down to prevent stabbing accidents to yourself and others.

- Sharpened pencils should be placed point down in pencil holders or kept in desk drawers.

- Sharp or pointed objects, such as scissors, letters openers, tacks should be kept in protective containers in desk drawers. This would help prevent hand injuries when rummaging through drawers.

- **DO NOT** leave open scissors lying on top of a desk or in a desk drawer.

- If items are stored above eye level, use a ladder to retrieve or store them. Avoid standing on a chair or other type of makeshift ladder.

- **DO NOT** place file cabinets so that open drawers will block door or passageways.

- The standard four-drawer filing cabinet can cause injury if it is upset, usually as a result of opening a heavily loaded top drawer. Open only one drawer at a time. When possible load heavy ledgers and files in the bottom drawers. Always fill a cabinet from the bottom drawers to the top drawers to maintain the lowest possible center of gravity in the cabinet.

- Where the possibility exists that a cabinet may tip when opened, request maintenance to secure the cabinet to the floor or adjacent cabinets.

- **DO NOT** place two-drawer cabinets on top of each other to make a four-drawer cabinet. The cabinets should be replaced with one four-drawer unit or bolted together.

- Electrical and telephone cords are to be located out of the passageways and walkways where they would create a tripping hazard.

- Do not overload electrical outlets.

- Do not use extension cords, adapters, or “cheetah plugs”.

- Notify maintenance of any observed defects in electrical appliances.

- Do not remove the ground prong on three-prong plugs. Electrical equipment with a ground pin requires a three-prong receptacle. In the event an electrical outlet is not the three-prong type, request maintenance to replace the units.

- Check that electric wires and plugs are in good condition, with no frayed or worn areas.

- Turn off electrical equipment at end of work day.

- Avoid standing in front of closed doors that may suddenly open.

- When using stairways, take one step at a time. Stair rails or walls rails should be used to prevent falls when ascending or descending stairs.

- Do not stop and talk on stairs. Use landings.

- Check that floor surfaces are in good condition. Report slippery areas on torn carpets.

- Keep hand and fingers on the handle of the paper cutter before pressing down.

- Keep paper cutter handle in closed/locked position when not in use.

- Keep fingers away from ejecting slot when leading or testing stapling devices.

- **DO NOT** place objects on window sills.

- Know how to **Dial 9-1-1**. Are required to call 9 to get an outside line? Then **Dial 9-9-1-1**.

C. Video Display Terminals (VDT) Workstation Layout

Many employees use computers. Some employees use computers the entire day, others part of the day, and some use them occasionally. Whatever the frequency of use of the computer is, there are some basic health and safety procedures to help prevent injuries.

- No matter how comfortable your workstation is, sitting still for long periods of time can be tiring and stressful.

- Stretch occasionally and look away from the work frequently.

- If possible, get up from the terminal and do other tasks.

- Alternate different tasks throughout the work day to vary work rhythms. Take time out to collate papers or deliver completed work. This will keep strain and tension from building up.

How to Adjust Your Workstation

When workstations are not ideal, some simple adjustments can usually improve them.

1. Keyboard Height

The keyboard height should be comfortable – about 21/2 inches form the top of the table to the top surface of the space bar and bottom row of keys. At that height, the desk top can give the needed support to the operator's wrists. If the desk top is the right height, approximately 24 to 28 inches, the upper and lower arms form a comfortable at ones sides, taking the strain off the upper back and shoulders.

If the keyboard is not adjustable, and it is too high for comfort, try placing pads under the wrists to elevate them to a more comfortable position.

Keyboards are rarely too low, but a low keyboard can be adjusted. Try a pad of paper or flat piece of wood under the keyboard.

2. Screen Face Angle and Screen Height

The face of the screen should be titled back about 10 or 20 degrees for easier viewing – provided this does not increase the glare on the screen.

The top of the screen should be no higher that eye level to minimize eye movement.

For comfortable viewing, the screen should be about 18 inches from the eyes.

3. Chair Height

Good posture is essential. To prevent neck and back strain, keep the spine and head upright. Sit well back into the chair. The chair is at a comfortable working height when one doesn't feel excessive pressure on the legs from the edge of the seat. Pressure from the seat front could make the legs to sleep. The backrest should fit comfortable at the small of the back to give good support. Use the following methods to determine the correct chair height.

- Sit with the soles of the shoes flat on the floor. Keep the shins perpendicular to the floor and relax the thigh muscles.

- Measure the distance from the hollow of the knees to the floor.

- Subtract 1 to 3 inches.

  The resulting measurement is the correct height for the top of the chair seat.

4. Glare

Sometimes glare and poor lighting make it difficult to read the **VDT** screen or the copy. The following are some hints in improving the workstation lighting. To control glare:

- Adjust the screen's brightness and contrast controls to compensate for reflections on the screen.

- Close the blinds or pull the shades to block daylight from coming through a window from behind the terminal.

- Try to eliminate or adjust any intense light source shining directly into the eyes.

- One can minimize the strain of reading in a dimly lit room by using a small task light. Make sure the light is positioned so it does not cause glare or reflect on the screen.

D. Chemical Safety/Handling Chemicals

- All personnel handling or working with acids, caustics, solvents, or petroleum products shall follow safe work practices and all safety rules.

- Wear **all** necessary personnel protective equipment such as goggles, gloves, and proper clothing when working with acids or other corrosive materials may occur.

- No food or drink shall be stored or consumed in the area where potentially toxic substances are stored, mixed or otherwise handled.

- Employees will use due care to avoid spills or splashes when handling chemicals. Spilled chemicals must be cleaned up immediately. Use absorbent materials and proper disposal procedures indicated on the **Material Safety Data Sheet** when spills occur.

- All containers of chemicals or substances shall be clearly labeled to indicate the hazards and all precautionary measures to be observed.

- Handle tools carefully while working around acid or other chemicals to avoid dropping them. They may cause a splash.

- After tools have been used around corrosive chemicals, clean them thoroughly.

- In mixing acid and water, always pour the acid into water slowly. **Never pour water into acid; it may splash.**

- If contact is made with caustic or corrosive chemicals, take immediate action by flushing the affected part with water. This can be accomplished by using a safety shower and removing clothing that is contaminated. Rinse affected area for at least **15 minutes.** If swallowed, check the chemical warning label on container or the Material Safety Data Sheet.

- **If caustic or corrosive chemicals enter eyes, flush with water for a minimum of 15 minutes.** In the event an eye wash system is not available, use a garden hose or any source of potable water that is immediately available.

E. Hazard Communication

OSHA 29 CFR Part 1910.1200 Hazard Communication requires employers to communicate to employees information concerning hazardous chemicals in the workplace. The City of Miami Beach provides information about hazardous materials to all employees who use or who could be exposed to such materials. The data includes information such as:

- Chemicals labeling.
- Material safety data sheets.
- Personal protective equipment as necessary.
- Employee training on the safe use and handling of the materials.
- Emergency response.
- Hazards of non-routine tasks.

The following are basic safe work practices to utilize when working with hazardous materials. Refer to the **Division's Hazard Communication Program** for program specifics.

- Know where the written hazard communication program is kept for employee access. **Read it**. The written program clearly outlines the purpose and intent of the hazard communication policy.

- Know where the material safety data sheets (**MSDS)** are located. Read and use the **MSDS** of ach product to understand, determine, and apply the safety precautions, personal protective equipment, and the type of hazards associated with the use and storage of the material.

- Read warning labels to identify hazardous materials and the hazard associated with them.

- Wear all required personal protective equipment when working with hazardous materials.

- Know how to fit, clean and store the personal protective equipment.

- Use established engineering methods to control exposures as instructed. Engineering controls help reduce exposure to hazardous materials.

- Follow all safe work practices when using or handling hazardous chemicals. If in doubt, ask supervisors for help.

F. Bloodborne Pathogens Standard

OSHA 29 CFR Part 1910.1030 Bloodborne Pathogens Standard requires employees to determine who has occupational exposure and to establish methods to reduce workplace exposure to bloodborne diseases.

The standard requires the employer to develop an **Exposure Control Plan.** The information in the **Exposure Control Plan** will insure limited occupational exposure to blood and other potentially infections materials.

If applicable, refer to the **Division's Bloodborne Pathogens Exposure Control Plan** for specifics. (See Specialized Training Section)

This standard applies to all City employees who in the scoop of their employment may be potentially exposed to:

- **Blood**
- **Blood Products**
- **Body Fluids**
- **Infections Materials**

An employee is covered by the standard if it is reasonably anticipated that they could be exposed to bloodborne pathogens as a result of performing the job duties.

The two most significant diseases one way be exposed to are hepatitis B **(HBV)** and human immunodeficiency virus **(HIV)**

The Exposure Control Plan must include:

- Identification of tasks, procedures and job classifications where occupational exposure to blood or body fluids may occur.

- Methods of compliance emphasizing engineering and work practice controls.

- The type of appropriate personal protective equipment required for each job or task.

- Provisions for general housekeeping and handling of contaminated laundry.

- An outline of training requirements and methods or recordkeeping.

- A copy of the **Exposure Control Plan** will be made available to each employee.

The **Exposure Control Plan** shall be reviewed and updated at least annually to reflect new or modified tasks and procedures.

The employer **must make the Hepatitis B vaccination** series available to all employees who may have occupational exposure at no cost to employee.

Employees shall:

- Observe universal precautions set forth by the CDC (Center of Disease Control) to prevent contact with blood or any other potential infectious materials.

- Utilize and wear any personal protective equipment required for a task outlined in the **Exposure Control Plan.**

- Be familiar with warning labels, signs and color-coding that may indicate bio-hazardous wastes.

- Use established engineering methods to control exposures as instructed in the **Exposure Control Plan.**

- **Do not** eat, drink, smoke, apply cosmetics or lip balm, handle contact lenses where blood or other potentially infectious materials are kept.

- **Do not** recap, remove or bend any needles or sharps.

- **Do not** shear or break contaminated sharps.

- **Do not** was or decontaminate “disposable” gloves for reuse.

- Clean and decontaminate all equipment and work surfaces that have been contaminated with blood or other potentially infectious materials.

G. Confined Space Entry

OSHA 29 CFR Part 1910-146 Confined Space Entry Standard provides a broad definition of confined space as one which has limited access or egress, is not normally used for employee occupancy, and where a hazardous atmosphere may naturally exist or be created by work procedures or processes. A hazardous atmosphere is further defined as one that contains one or more of the following:

- Combustible gases or vapors in excess or **10%** of the lower explosive limit (LEL) for those gases or vapors.

- Oxygen deficiency where the atmosphere contains less than **19.5%** oxygen or more than **22.0%.**

- Toxic gases and vapors present in a quantity that exceeds the threshold limit value **(TLV).**

- Tanks, pits, boiler, manholes and sewers are some example of common confined spaces.

- The following procedure will be used when entering a confined space.

- The area to be entered shall be tested for hazards prior to each entry, using an approved device. A record of each test shall be completed and turned in to the supervisor each day. The record will indicate the time, date, location and name of person testing the confined space. Additionally, oxygen content, any gases present and the serial number of the testing unit will be noted on the entry permit.

Refer to the divisional Confined Space Entry Program for specific procedures. (See Specialized Training Section)

H. Lock-Out/Tag-Out

OSHA 29 CFR Part 1910.147, the Control of Hazardous Energy (Lock-Out/Tag-Out) standard covers the servicing and maintenance of machines and equipment in which the unexpected energization or start-up of the machines or equipment could cause injury to employees.

According to **OSHA,** an energy source is any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

The lock-out/tag-out rule requires the employer to establish an energy control program that includes:

- Documented energy control procedures.
- An employee training program.
- Periodic inspections of the procedures.

This standard requires employers to establish an Energy Control Procedure Program and utilize procedures for affixing appropriate lock-out devices or tag-out devices.

Refer to the department's Lock-out/Tag-out Energy Control Procedure Program for specifics. (See Specialized Training Section)

The Energy Control Plan must include:

- A specific statement of the intended use of the procedure.
- A specific statement to ensure that machines and equipment are isolated and inoperative before any employee performs service or maintenance where the unexpected energization, start-up, or release of stored energy could occur and cause injury.
- Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy.
- Specific requirements for testing a machine or equipment to determine and verity the effectiveness of lock-out energy control measures.

An employee having the need to secure an energy source shall:

- Conduct periodic inspections – these inspections shall be conducted by the employee and an authorized employee other than the one(s) utilizing the energy control procedure.

- Utilize tags legible and understandable by all authorized employees.

- Utilize lock-out devices substantial enough to prevent accident removal and the use of excessive force or unusual techniques, such as the use of bolt cutters or other metal cutting tools.

- Utilize lock-out and tag-out devices that indicate the identity of the employee applying the device.

- Utilize specific procedures during shift or personnel changes to ensure the continuity of lock-out or tag-out protection.

Before lock-out/tag-out devices are removed and energy is restored to the machine or equipment, employees shall ensure the following:

- The work area shall be inspected to ensure non-essential items have been removed and to ensure machines or equipment components are operationally intact.

- The work area shall be checked to ensure all employees have been safely position or removed.

- Each lock-out/tag-out device shall be removed form each energy isolating device by the employee who applied the device.

- Blocking the flow of energy from the power source and placing a tag or lock to prevent other from turning the power on is one way to prevent accidental start up of electrical equipment.

I. Material Handling

- All personnel engaged in handling materials of any type shall be instructed in the proper method of lifting heavy objects. Employees are required to follow all safe work practices involved with lifting and material handling.

- Proper lifting involves: use of the large muscle of your legs rather than the small muscle of your back. Always, take a firm grip, secure a good footing, place the feet at a comfortable distance apart, keep the load close to your body, keep your back straight, bend your knees and lift with your legs. Always plan the lift and placement of the load.

- If the load is too heavy, get help. **DO NOT** strain.

- When working with another person and carrying loads such as pipe, etc., let your partner know before releasing an end or doing anything which might create an accident.

- Fingers and toes shall be kept in the clear before setting down any materials or equipment.

- When a crane is used to lift heavy or bulky objects, remember to stand clear of the suspended or overhanging load.

- All materials must be loaded on motor trucks and secured so they will not fall off in transit. If necessary, tie the load to the truck.

- Materials shall be stored or placed only in authorized areas.

- Defective or broken strapping on materials shall be removed, repaired, or replace before handling.

- Materials shall not be thrown form elevated places to the floor or ground. Suitable lowering equipment should always be used for this purpose.

- Neckties, fingers rings, loose clothing, and other such items should not be worn by personnel working on or near any rotating machinery.

- Lifting and lowering operations being performed by several persons shall be done on signal from one person chosen to be the group coordinator and only after everyone's hand and feet are in the clear.

- Wheelbarrow, hand trucks and other similar devices shall not be over loaded or unbalanced.

- All stacked materials, cargo, etc, shall be examined for sharp edges, protruding points, signs of damage, or other factors likely to cause injury to person handling objects. These defects should be corrected before proceeding with the operation.

- When removing bulk material for piles, or when excavating, never undercut the pile so one would have to work under overhanging material.

- Hand trucks should be in safe operating conditions

- **Material Safety Data Sheets** should be available to employee handling hazardous substances.

- Pallets should be checked before being used.

- Trailers and truck should be secured form movement during loading and unloading.

J. Welding, Cutting and Brazing

- Only authorized and trained personnel should operate welding equipment.

- Compressed gas cylinders should be examined regularly for signs of defects, deep rusting or leakage.

- Only approved apparatus – torches, regulators, safety valves must be used.

- Welders must be certain approved fire fighting equipment is nearby before commencing welding operations when working in the vicinity of flammable materials.

- There must be adequate ventilation in and where welding or cutting is performed.

- Helmets or hand shield must be used during all welding or cutting is performed.

- Helpers or attendants must be provided with the proper eye protection.

- All filters lenses and plates must meet **ANSI Z87.1** standards for transmission of radiant energy.

- Workers or other persons adjacent to the welding areas must be protected from the rays by noncombustible or flameproof screens or shields or they must wear appropriate welding safety goggles.

SIGNS MUST BE POSTED: DANGER

NO SMOKING, MATCHES OR OPEN FLAMES.

Welding Eye Safety

Workers or other persons adjacent to the welding areas must be protected form the rays by noncombustible of flameproof screens or shields OR they must wear appropriate welding safety goggles.

- Helmets or hand shields must be used during welding or cutting operations.

- Helpers or attendants must be provided with the proper eye protection.

- All filter lenses and plates must meet **ANSI Z87.1** standards for transmission of radiant energy.

K. Handling of Compressed Gas Cylinders

- Compressed gas cylinders must not be stored in direct sunlight or any hot place.

- Employees must not use a cylinder of compressed gas without reducing the pressure through a regulator attached to the cylinder valve.

- Oil and grease will not be used as a lubricant on valves and attachments of oxygen cylinders. Keep oxygen cylinders and fittings away form oil and grease, and do not handle such cylinders or apparatus with oily hand, gloves, or clothing.

- Oxygen shall not be used as s substitute for compressed air in pneumatic tools, in oil preheating burners to start internal combustion engines, or to dust off clothing.

- Cylinders of oxygen, when stored indoors, shall be kept in areas separate from flammable gasses.

- Cylinders must be kept in racks or stands, or set in an upright position, and chained to prevent being knocked over.

- The valve protection cap must be kept in place whenever cylinders are not in use.

- Cylinders must never be used for other than their designated kind of gas.

- Do not stand in front of gauges when opening the discharge valve.

- Handling of cylinders by cranes must be done only when the proper racks are used. Rope or wire slings are prohibited.

- It is prohibited to use cylinders as rollers or supports.

- Remove regulators and place caps over valves when transporting cylinders by other that regular cylinder trucks.

- Cylinders must never be dropped or treated roughly.

- Leaky cylinders must be placed in an open immediately ventilated area upon notice.

- Inspect hose lines frequently for leaks. Do no place torches in cans or leave in unventilated area.

L. Overhead Cranes

- The rated load must be visible. Do not lift more than the rated load.

- The hoist controls must be plainly marked indicating the direction of travel.

- An inspection sheet showing the date of inspection and who inspected the crane must be visibly posted.

Overhead Crane Inspection

DAILY INSPECTION REFERS TO EVERY DAY THAT THE CRANE IS USED.

1. Conduct frequent inspections from a daily to one month interval for the following conditions:

- All functional operating mechanisms for adjustment interfering with proper operation. **DAILY**

- All functional operating mechanism for excessive wear of components. **DAILY**

- All safety devices for malfunctioning. **DAILY**

- All hoist and travel limits switches should be checked within a load on the device at the beginning of each work shift. Each motion should be inched into its limits switch with extreme care.

- Deterioration or leakage in lines, tanks, valves, drain pumps or other parts of air or hydraulic system. **DAILY**

- Frequent inspection procedure for overhead hoists as specified in **ANSI B30.16**.

- Frequent inspection procedure for hooks as specified in **ANSI B30.10**

2. Conduct periodic inspections from once a month to annually interval for the following conditions:

- Loose bolts and rivets

- Deformed, cracked or corroded structural members.

- Cracked or worn sheaves.

- Worn, cracked or distorted parts such as pins, bearings, wheels, shafts, gears, rollers, bumpers, switch baffles, interlock bolts, and trolley stops.

- Wear on brake system parts, linings, pawls and ratchets.

- Wear on brake system parts, linings, pawls and ratchets.

- Wear on chain sprockets and chain stretch chain.

- Electrical apparatus for signs of pitting or deterioration of control contractors, limit switches, and pushbutton station.

- Worn drive tires.

- Wear on lower load carrying flange of all track sections in the system both straight and curved.

- Periodic inspection procedure for overhead hoists as specific in **ANSI B30.16.**

M. Forklifts

- Only authorized and trained personnel may operate a powered industrial truck **(forklift).**

- Truck must not be driven up to anyone standing in front of a fixed object.

- Under all travel conditions the truck must be operated at a safe speed that will allow it to be brought to a stop in a safe manner.

- No one is allowed to stand or pass under the elevated portion of the truck, whether it is loaded or not.

- Trucks will not be used for opening or shutting freight doors.

- A safe distance must be maintained from the edge of the ramps and platforms while on any elevated dock.

- There must be sufficient headroom under overhead installations, lights, pipes and sprinkler systems.

- Stunt driving and horseplay are prohibited.

- Only stable or safely arranged loads should be handled. Caution will be used when handling off-center loads.

- Only loads within the rated capacity of the truck will be handled.

- If at any time a powered industrial truck is found to be in need of repair, defective or in anyway unsafe, it will be taken out of service until repaired.

- The brakes of highway trucks must be set and wheel chocks placed under the rear wheels to prevent the truck from rolling while they are boarded with forklift trucks.

- A powered industrial truck is considered to be unattended when the driver is dismounted, over 25 feet from the vehicle, or can not see the vehicle from where he/she is standing.

- No modifications will be made to the forklift without the expressed written permission form the manufacturer.

- Do not turn the forklift on any hill, ramp, or incline.

- When ascending or descending grades in excess of **10%**, loaded trucks shall be driven with the load upgrade.

- Seatbelts must be equipped and worn on all forklifts.

- Forklift must be equipped with an audible warning device.

N. Battery Charging and Storage Batteries

- Battery charging installations should be located in areas designated for that purpose.

- According to **OSHA 1910.151**, where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

- Battery charging must be done in a well ventilated area.

- Facilities for flushing and neutralizing spilled electrolyte must be provided.

- **"NO SMOKING"** signs must be posted in battery charging areas.

- Tools and other metallic objects must be kept away form the tops of uncovered batteries.

O. Machinery

- Employees must never operate machinery or equipment without authorization, and then only after receiving full instructions on its safe operation from their supervisor.

- All gears, belts, pulleys, pinch points or other power transmission equipment shall be adequately guarded.

- Lock-out and tag-out procedures must be followed when adjusting, oiling, clearing, or repairing equipment.

- A brush shall be used for clearing chips away from machinery, equipment, or work benches. Hands shall never be used to clear any chips, dust, or other material.

- Never apply a wrench to moving machinery. Stop the machine, then carefully remove all tools before restarting.

- Tool rests, tongue guards, and eye shields shall be kept in adjustment on grinding wheels at all times.

- **DO NOT** leave machines unattended while in operation.

- Machine operators should not be distracted while on the job.

- A vice or clamp shall be used to secure work in place, freeing both hands to operate the tool.

- Power shut off switches should be within operators reach.

- After a power failure machinery should not restart automatically.

P. Proper Use of Tools

1. Power Tools

- **Safety glasses/goggles must be worn** when operating power tools.

- On abrasive grinders, the tongue guard must be adjusted at ¼" maximum and the tool rest must be at 1/8" maximum. The adjustable tongue or the end of the peripheral member at the top shall never exceed an inch.

- Immediately before mounting, all wheels shall be closely inspected and sounded by the using the "ring test". (Tap the wheel lightly with a non-metallic implement such as the handle of a screwdriver. If it produces a ringing sound, it is in good condition.

- If it sounds dull, replace the wheel. Do not use a cracked wheel). If not properly mounted and used, sections of the wheel may fly out at high speeds and can strike the operator.

- The spindle speed of the machine shall be checked before mounting the wheel to be certain it does not exceed the maximum operating speed marked on the wheel.

- **Never** carry a tool by the cord or hose.

- **Never** yank the cord or the hose to disconnect it form the receptacle.

- All observers should be kept at a safe distance away form the work area.

- Avoid accidental starting. Do not hold a finder on the switch button while carrying a plugged in tool.

- Tools should be maintained with care. They should be sharp and clean for the best performance. Follow instructions in the user's manual for lubricating and changing accessories.

- All portable electric tools that are damaged should be removed from use and tagged **"Do Not Use".**

- Grinders, saws and similar equipment must have appropriate guards in place.

- Portable circular saws must be equipped with guards above and below the base plate or shoe.

- All cord connected, electrically operated tools and equipment must be grounded or approved double insulated.

- Hands should be dry before using any electrical equipment and the user should not be standing in or be too close to water.

- Carefully examine all electrical equipment, including extension cords, every time they are used.

2. Powder Actuated Tools

- Powdered Actuated Tools **(P.A.T)** operate like a loaded gun and should be treated with the same respect and precautions. They must only be operated by specially trained employees. It is required for **P.A.T** operators to be certified and **carry** a valid operator's license.

- **P.A.T.'s** must be stored its own locked container when not in use.

- These tools should not be used in explosive or flammable atmospheres.

- The tool should be inspected prior to each use.

- A **P.A.T.** should never be pointed at anyone.

- The tool should not be loaded unless it is to be used immediately. A loaded tool should not be left unattended.

- Fasteners must not be driven into any hard or brittle materials which might chip or splatter.

3. Jacks

- All jacks, lever and racket jacks, screw jacks and hydraulic jacks – must have a device that stops them form jacking up too high. Also, the manufacturer's load limit must be permanently market in a prominent place on the jack and should not be exceeded.

- A jack should never be used to support a lifted load. Once the loads has lifted, it must immediately be blocked up.

- Proper maintenance of jacks is essential for safety. All jacks must be inspected before each use and lubricated regularly.

- Remove handles from jacks when not in operation.

4. - Compressors, Compressed Air & Pneumatic Tools.

- Compressors must be equipped with pressure relief valves and pressure gauges.

- air intakes should be located so that clean air enters the compressor.

- It is prohibited to direct compressed air towards a person.

- Compressed air used for cleaning purpose must be reduced to 30 psi.

- Signs must be posted warning of the automatic starting features of the air compressors.

- Compressors must be drained periodically.

- Pneumatic tools should be used at the manufactures listed pressure.

- Compressed air shall not be used to blow dust out of hair or to clean clothes while being worn.

5. Hand Tools

- Always use the proper tool for the job. Inspect tools for flaws, correct sizes and cutting edges before using. If tools are found to be defective, return them for replacements.

- Proper tools must be used for the purpose they were designed.

- Keep hand tools clean and in proper working order at all times.

- Tools with mushroomed heads or hammers with split or loose handle shall not be used until repaired.

- Files shall be used only when equipped with handles.

- Only spark-proof tools shall be used around explosives.

- Sharp and pointed tools shall be carried in sheaths instead of loose in the pockets.

- Keep hands out of the path of sharp tools. When using knives or chisels cut away form, instead of toward the body.

- **DO NOT** leave tools lying where others may slip or trip over them.

- **DO NOT** leave chuck wrenches in chuck.

- When using air power equipment always shut off air at manifold and bleed air hose before disconnecting machine, hand tools or air hose.

- All portable air drills, air hammers, etc. shall be equipped with a hand grip switch which will shut off the supply of air when grip is released.

6. Ladder Safety

The primary safety hazard involved with using a ladder is falling. A poorly designed or improperly used ladder may collapse under the load placed upon it and cause the worker to fall.

Various types of ladders used include:

Fixed Ladder	-	a ladder permanently attached to a structure, building or equipment.
Step Ladder	-	a self supporting portable ladder non adjustable in length, having flat steps and hinged back.
Single Ladder	-	a non self-supporting portable ladder, nonadjustable in length, consisting of but one section. Its size is designated by overall length of the side rail.
Extension Ladder	-	a non self-supporting portable ladder adjustable in length.

Ladder safety rules include, but are not limited to the following:

- Never exceed the rated weight limits of the ladder.
- All ladders should be checked before using to make certain the rungs and side rails are in sound condition. The rungs should be free of grease and oil.
- All wood parts should be free from sharp edges and splinters.
- Ladders with broken or missing steps, rungs, or cleats, broken side rails or other faulty equipment must not be used.
- Ladders that have developed defects must be withdrawn from service for repair or destruction. They must be tagged or marked **"Dangerous – Do Not Use".**
- Portable straight ladders should be firmly placed on secure footing. If there is a danger of slipping, the ladder should be held by a fellow worker or lashed in place.
- Step spacings should be uniform and no more than 12 inches.
- Both hands should be kept on the ladder while ascending or descending.
- The worker should always face the ladder when climbing up or down.
- When on a ladder, exercise caution and **DO NOT** over-reach.

- When necessary to place ladders in front of blind doorway, the door should be locked or guarded by a fellow employee.

- Barrels, boxes, chairs, or crates shall not be used in place of stepladders.

- Ladders must not be placed on boxes, barrels, or other unstable bases to obtain additional height.

- Short ladders must not be spliced together to provide long sections.

- Straight ladders shall not be used unless equipped with safety shoes.

- Ladders should not be used for any other purpose than for what they were intended.

- Stepladders must be fully extended and in sound condition before using. They must be equipped with a metal spreader or locking device to hold the front and back sections in the open position.

- The top step of a step ladder should not be used as a step.

- Extension ladders longer that **60 feet** must not be used.

- Metal ladders must never be used near electrical equipment.

- Ladders used to gain access to a roof or other area must extend at least **3 feet** above the top point of support.

- Ladders shall be equipped with a line near the top rung and shall be secured to support where possible.

- The foot of a ladder shall, where possible, be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder.

7. Stairs

- The use of hand rails is encouraged.

- Packages or other materials carried on stairways should be held so that vision is not obstructed.

- When using stairways, take one step at a time. Stair rails or wall rails should be used to prevent falls when ascending or descending stairs.

- Do not stop and talk on stairs, use landings.

- All stairways, catwalks, gangways and open work areas above the ground or floor shall be provided with substantial guard rails.

8. Scaffolding

- All scaffolds shall be equipped with life lines which shall be worn by personnel working on such structures.

- **DO NOT** sit, lean, or rest on or against any railing or life line.

- A safe means must be provided to gain access to the working platform level through the use of a ladder, ramp, etc.

- Overhead protection must be provided for personnel on a scaffold exposed to overhead hazards.

- Tools and equipment must not be left unsecured in any elevated position.

- The footing or anchorage for scaffolds must be sound, rigid and capable of carrying the maximum intended load without settling or displacement.

- Unstable objects. such as barrels, boxed, loose brick or concrete blocks must not be used to support scaffolds or planks.

- Scaffold planks should extend over their end supports not less than **6 inches** or secured from movement.

- Guardrails, midrails and toe boards must be installed on all open sides and ends of platforms more than 10 feet above the floor.

- There should be a screen with a ½ inch maximum opening between toe boards and the guardrails where persons are required to work or pass under the scaffold.

- Scaffolds must be maintained in a safe condition and must not be altered or moved horizontally while they are in use or occupied.

- Built-up scaffolds shall be erected by qualified personnel and inspected at appropriate periods to insure the structure is safe.

- Damaged or weakened scaffolds must be reported immediately and not used until it is repaired.

- Employees must not work on scaffolds during storms or high winds.

9. Outdoor Equipment

Landscaping Equipment

When working with any landscape equipment, the following procedures should be observed:

- Read the manufacturers manual for each piece of equipment.
- Follow the recommended operation procedures at all times.
- Check and inspect machinery for defects.
- Use proper fueling method.
- Inspect equipment for all proper safety features – do not override safety devices.
- Dress for safety – wear all necessary Personnel Protective Equipment **(PPE).**

The following Personnel Protective Equipment is recommended to be used when working with landscaping equipment:

- Eye protection – safety glasses or goggles – tinted is available.
- Hearing protection.
- Safety shoes.
- Close fitting clothing, not loose or tight.
- Gloves,
- Hard hat (chain saws)
- Cut resistant chaps (chain saws)

10. Fueling and Refueling Procedures:

The following procedures will be observed when fueling/refueling:

****DO NOT SMOKE****

- Always fill on a level surface.
- Do not fill while engine is running or hot. Let the engine cool.
- Do not overfill the tank, wipe up all spills.
- Remove any dirt and debris from the surface of the equipment to prevent debris from entering fuel tank.

- Wipe off any spilled fuel after filling.

- Keep fuel in an approved safety can.

- Mix two cycle fuel in the safety can – not the fuel tank.

11. Weed Cutters.

- Check shields for cracks

- Use the correct shield for the blade in use. Plastic/nylon line – use plastic shield. Metal blades – use metal shields.

- Utilize the proper length of nylon cord.

- Make sure lock handle is in place and throttle must operate freely.

- Know where debris goes – curved shaft models throw debris in a clockwise direction, straight shaft models debris is thrown in a counter clockwise direction.

- Use the safety harness as it distributes the weight of the machine.

- Avoid hazards, be aware for pedestrians, wire fences, hidden objects.

- When using the metal blades – the "bull horn" handle keeps the operator away from the blade.

- Store safely – let machine cool before storage.

12. Hedge Trimmers

- Start tool on a firm surface, **do not** start in mid-air **(drop start).**

- **Do not** override safety features or switches do not tape switches in an **on** position.

- **Do not** modify equipment.

- **Do not** overreach when using the trimmer.

- To clear debris from the blades – **turn off** the machine.

- **Do not** remove muffler cover, if worn – replace it.

13. Blowers

- Check fan guard.
- Make sure there are no bystanders in the way.
- **Never** point the blower at anyone.

14. Riding Mower

Before riding:

- Check the machine for defects.
- Check for all safety devices.
- Make sure the instruction decals are in good condition, easily readable, and understandable.
- Make sure the deflector chute or back chute is clear.
- Make sure all guards are in place.
- Make sure the parking brake is in good operational order.
- Check and clear the area – the area should be free from pets, children and debris. All debris must be cleaned up before starting.
- **DO NOT OVERRIDE SEAT SAFETY SWITCHES!**
- Use blade disengagement lever when not in a moving situation.
- When cutting on a slope – go up and down the slope to avoid tipping over.
- Passengers are not allowed on the mower at any time.

NO CITY EMPLOYEE SHALL OPERATE A MOTOR VEHICLE WHILE WEARING A HEADSET HEADPHONE, OR OTHER LISTENING DEVICE, OTHER THAN HEARING AID OR INSTRUMENT FOR THE IMPROVEMENT OF DEFECTIVE HUMAN HEARING.

When dislodging anything caught in the blade or chute:

- Turn off the engine.
- Take the key with you.

- Disengage spark plug wire.

- Then remove debris.

When transporting mower:

- Carriage should be raised as high as possible.

- Parking brake should be engaged.

15. Chain Saw

- Plan the work – ensure that there is an obstacle-free work area and, in the case of falling, an escape from the falling tree.

- Remove all obstructions from the path of the saw.

- Secure a good footing.

- Grip the handle firmly, the thumbs and fingers should encircle the handle.

- Chain saws should be started up on the ground and not in the cuts.

- Never operate a chain saw that is damaged, improperly adjusted, or not completely and securely assembled.

- When cutting – avoid reaching above shoulder height.

- Never adjust the guide bar or saw chain when the engine is operating.

- **Never** carry a chain saw with its engine running **(idling).** Turn off the engine and carry the chain saw with the guide bar pointing to the rear and with the muffler away from the body.

- Be sure that the saw chain stops moving when the throttle control trigger is released.

- Before servicing, fueling or transporting – switch off engine.

Q. <u>Electrical Safety</u>

- Only authorized and qualified persons shall make repair to or work on electrical equipment.

- All electrical equipment must be grounded or double insulated.

- Hands should be dry before using any electrical equipment and the user should not be standing in, or too close to, water.

- Working surfaces shall be kept dry when working with or near an electrical apparatus.

- Steam, water, or oil leaks near electrical equipment shall be reported immediately to the supervisor in charge.

- Carefully examine all electrical equipment, including extension cords, every time they are used. Check for frayed, torn, or split cords. Look for cracked or broken insulation. Beware of damage plugs.

- Do not use any electrical equipment with frayed or otherwise deteriorated insulation.

- Electrical equipment which his overheated or sparking excessively shall be turned off immediately and an electrician called to correct situation.

- All electrical wires must be considered live until proven otherwise. Test all circuits to make sure of this.

- Follow required lockout/tagout procedures.

- Blocking the flow of energy from the power source and placing a tag or lock to prevent other from turning the power on is one way to prevent accidental start up of electrical equipment.

- The use of make-shift and over capacity fuses is prohibited.

- Never yank the cord to disconnect it from the receptacle.

- Learn what to do in an emergency. Know where and how to shut down the power.