GENERAL SAFETY RULES, POLICIES AND PROCEDURES

Fire Prevention

1. Mechanical rooms, housekeeping closets, workshops and all other areas assigned to GSA shall be kept free and clear of unnecessary storage, deposits or accumulations of combustible waste and rubbish of any kind.

2. Oily rags shall be stored in a metal can with a lid and removed for cleaning or discarded daily.

3. Smoking and other open flames are prohibited around LP gas, oxygen and acetylene cylinders, flammable liquids, chlorine and combustible dusts.

4. Fire protection features in buildings such as fire walls, wired glass, fire doors, fire alarms, dampers, sprinklers, egress hardware, electrical in hazardous locations, etc., must be maintained during maintenance and renovation work. For example, holes must be sealed in fire walls, wired glass must be replaced with wired glass, sprinklers must be replaced with exact replacements, etc. The Safety Officer must be contacted whenever maintenance will affect fire protection in a building.

Ladders, Scaffolds and Automatic Lifts

1. Ladders must be inspected by the shop foreman at least monthly. Ladders found to be defective shall be marked “defective,” removed from service and discarded. Examples of defective ladders are those with bent rungs, spreaders or side rails, missing or loose rungs or rivets, cracked wood, etc. Non-conductive ladders must be used when working on electrical equipment.

2. Manufactured tubular scaffolds must be erected in accordance with the manufacturers’ instructions. Guardrails must be in place and except for mobile scaffolds; anchorage must be in place. All loads carrying timber members must be scaffold grade.

3. Mobile and other freestanding scaffolds are limited to a 4 to 1 height to base dimension. The wheels must have locks and the scaffold must not be moved with employees on the scaffold. Guardrails must be in place. Other “job made” scaffolds require prior approval of the Safety Officer.

4. The safety procedures listed below are to be followed by employees using the upright lift, Genie lift, Spider scaffold and similar equipment.

    a. Each employee responsible for set up of lift equipment or scaffolds shall first read the operating instructions and safety rules provided by the manufacturer for the equipment. These are available from the Safety Officer.

    b. All instructions and safety rules in the manual shall be followed.

c. Lift equipment scaffolds shall be inspected in accordance with the manufacturers' manual prior to using the equipment. Equipment with missing, damaged or worn parts shall not be used.

d. For man-lifts, outriggers are always required to be in place.

e. For the up-right lift, the guardrails are to be raised while the lift is in horizontal position.

f. Man-lifts are not to be moved while the lift is elevated.

g. All employees on suspension scaffolds are required to wear safety harnesses anchored to the building structure.

h. Unauthorized personnel shall barricade the area directly below suspension scaffolds to prevent entry.

5. The "Sky Genie" Variable Descent System consists of a lifeline, body harness, anchor attachment and ascending unit. The system is intended to be used solely as a safety lifeline for work on scaffolds, the edge of roofs, etc. and is not to be used to lift or lower equipment or workers. Every employee who uses the descent system must first read the instructions provided and then follow the instructions to the letter.

Fall Protection for High Work

Safety lifelines and body harnesses are required for all work on sloped roofs, within 6' of the edge of open sided flat roofs, other elevated open sided areas where fall hazards exist, and in trimming trees. Lifelines must be ¾" manila or equal secured above the work to a structure capable of supporting a minimum dead weight of 5,400 lbs. Lanyards should be used with lifelines to provide a fall no greater than 6 feet.

Work in the Street

All employees who work in or along the side of a street ***MUST wear orange vests***. Vests worn at night shall be reflective.

A safe work zone must be designated and set up using flagmen, ***warning signs and orange cones on all projects, which require blocking off traffic lanes.*** (See the Safety Officer for details.)

Noise

Hearing protectors are required when using the chipper, leaf blower, chain saw, sandblaster, tractor, vac-truck and pneumatic hammer. Protectors are also recommended when using woodworking machines for more than 2 hours.

Steam Cleaners

1. Employees who use steam cleaners must first be trained and authorized.

2. The supervisor will maintain a current list of personnel and will turn the steam on for authorized personnel.

3. Hearing protectors, goggles and cuffed gloves are required to be worn. Two workers are required to be present during the cleaning process.

4. Before leaving the steam cleaner area, employees will clean the area, roll up the hose and turn in the protective equipment.

Material Handling and Forklifts

Employees shall not be put at risk of body strains unnecessarily. Shop supervisors shall assure that all jobs meet the following rules:

1. Lifting equipment (hand trucks, cylinder trucks, etc.) will be utilized whenever possible.

2. Adequate personnel will be assigned to the job dependent upon the weight and size of material. In general, materials weighing more than 50 lbs. will require two employees.

3. Repetitive lifting and twisting will be designed out of the job as much as possible.

4. Frequently used material and heavy large material will be stored in a location that does not require reaching over something, standing on a ladder or stool to get to, bending to the floor, reaching under something, etc.

5. Loose objects must be contained while being moved.

6. The route for carrying material should be as short as possible, avoiding steps, slopes and slippery surfaces if possible.

7. Employees must be made aware of unavoidable tripping hazards.

8. Employees should lift by bending their knees so that leg muscles are used.

9. Only employees who have been trained shall operate the forklift. All rules in the manufacturers' manual shall be followed.

10. Wheel chocks shall be used when unloading trucks at the warehouse.

11. A truck with flashing lights shall always follow the forklift en route to locations. A safe speed shall always be followed. The forklift shall not be used outdoors in wet weather.

12. Chemicals shall be stored and handled in accordance with policy.

Compressed Gases

The use and/or storage of compressed gases indoors will be in accordance with recommendations published by the Compressed Gas Association.

- Wall mounted or bench mounted gas cylinder brackets.
- Chains or belts anchored to walls or benches.
- Free-standing dollies or carts designed for gas cylinders and equipped with safety chains or belts.

The following rules summarize a few of the basic guidelines for the use and storage of compressed gases:

1. A cylinder must have the valve protection cover in place except when in use.

2. The pressure regulator must be removed and valve protection cover replaced before moving cylinders even if the cylinders are secured to a dolly or hand truck, e.g., acetylene and oxygen cylinders used for cutting, brazing, etc., may not be transported with regulators attached to the cylinders.

3. Smoking is not permitted in the area where flammable gases (acetylene, propane) are used or stored.

4. Gas cylinders must be used in an upright position and clamped securely at all times. (Due to the extreme hazards created by using certain cylinders in a horizontal position, e.g., acetylene, gases stored as a liquid.)

5. Appropriate dollies or hand trucks must be used to move cylinders weighing more than 50 pounds. Movement by spinning, sliding, rolling, etc., is prohibited. For movement within shops, cylinders weighing less than 50 pounds may be carried if desired.

6. All oxygen valves, gauges, regulators, pipes and fittings must be scrupulously free of oil, grease, graphite, or any other substance that can cause oxidation. Such pipes, gauges, fittings, etc., must at no time be exposed to come to an elevated temperature due to proximity to welding operations, burners, or other heat sources. Although oxygen is quite safe under normal temperatures and pressures, elevated temperatures and/or pressures, or contamination, may result in the rapid and violent oxidation of normally non-reactive materials. For example, a regulator used on oil-pumped nitrogen could produce a serious explosion if subsequently used for oxygen, due to the oil residue.

Chemical Safety / Handling Chemicals

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

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

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

4. The Material Safety Data Sheet (MSDS) is available to all employees. Handling and environmental specifications for every chemical can be found on the MSDS.

5. 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 (MSDS) when spills occur.

6. All containers of chemicals or substances shall be clearly labeled to indicate the hazards and all precautionary measures to be observe. Material Safety Data Sheet (MSDS) sheets shall be available for these.

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

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

Electrical Safety Awareness

The severity of electric shock is determined by the amount of current flow through the victim.

Experimental and field data from authoritative sources indicates that, in general, an alternating current of 100 milliamperes (100 mA) at commercial frequency of 60 cycles per second (60 Hz) may be fatal if it passes through the vital organs. Similarly, it is estimated that a current of 16 mA is the average current at which an individual can still release an object held by the hand. Such current flow can easily be received on contact with low-voltage sources of the ordinary lighting or power circuit.

Death or injury by electric shock may result from the following effects of current on the body:

a. Contraction of the chest muscles, which interferes with breathing.
b. Temporary paralysis of the nerve center.
c. Interference with normal rhythm of the heart, causing ventricular fibrillation.
d. Suspension of heart action by muscular contraction (on contact with heavy current).
e. Hemorrhages and destruction of tissues, nerves and muscles.

In general, the longer the current flows through the body, the more serious may be the result.

1. As a rule, electrical equipment and circuits 50V or greater should be de-energized before maintenance is performed directly on the equipment or circuits or if the work would expose the employee to unguarded live electrical parts.

2. Worn, damaged and spliced cords and plugs are the most frequent workers' electrical hazard. All damaged cords must be repaired by the electrical shop or replaced.

3. Extension cords must match the load they are connected to.

4. GFCI must be used on all outdoor and wet applications.

Note: *GFCI does provide protection against line to line electrical contact. GFCI operates in a fraction of a second at 5 milliamps. You may still receive a quick electrical shock with enough force to throw you from a ladder.*

Communications Devices

The equipment the City uses to communicate is the Motorola ASTRO XTS 5000 Digital Portable Radio. This two-way radio is designed and tested to comply with national and international standards regarding human exposure to radio frequency electromagnetic energy (RF Energy). This portable radio complies with exposure limits for occupational/controlled

RF exposure environment at duty cycles of up to 50% to talk – 50% to listen and should be used for occupational use only. This radio radiates measurable RF Energy only while it is transmitting (during talking) not when it is receiving (listening) or in standby mode.

Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility. When using the portable radio you must adhere to the following safety guideline in order to maintain safety for yourself and those around you. These are:

1. Every employee using the portable radio must read the Motorola ASTRO XTS 5000 Digital Portable Radio User guide completely.

2. To avoid electromagnetic interference and/or compatibility conflicts, turn off your radio in any facility where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy, the kind produce by the portable radio.

3. Employees with pacemakers should always keep the radio more than 6 inches from their pacemakers when the radio is turned on.

4. Do not carry the radio in the breast pocket.

5. Use the ear opposite the pacemaker to minimize the potential for interference from the portable radio.

6. Turn the radio OFF immediately if you have any reason to suspect that interference with your pacemaker is taking place.

7. Some digital wireless radios may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

8. Any other medical device that may interfere with the frequency from the radios, you must consult the manufacturer of the medical device to determine if it is adequately shielded from RF Energy. Your physician may be able to assist you in obtaining this information, like on what frequency does your medical device works on, etc.

9. When driving you must adhere to the laws and regulations regarding the use of portable radios. Always obey them.

10. When using portable radios give full attention to the driving and the road.

11. While driving using portable radios use hands-free operation, if available.

12. Always pull of the road and park before making or answering a call.

13. Do not place a portable radio in the area over an air bag or in the air bag deployment area. Air bags inflate with great force and the radio may be propelled with great force and cause serious injury to occupants of the vehicle.

14. Areas with potentially explosive atmospheres are often but not always posted. Potentially explosive atmospheres referred to fueling areas such as below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles, such as grain, dust or metal powders, and any other area where you would normally be advised to turn off your vehicle engine.

15. Do not remove, install, or charge batteries or accessories in potentially explosive atmospheres. Sparks in a potentially explosive atmosphere can cause an explosion or fire resulting in bodily injury or even death.

16. Turn radio off before removing or installing a battery or accessory.

17. Do not operate a Factory Mutual Research Corporation (FMRC) approved radio in a potentially explosive atmosphere if it has been physically damaged like, a cracked housing, an explosion or fire may result.

18. FMRC Approval labels are attached to the radio to identify the unit as being FM Approved for specified hazardous atmospheres. This label specifies the hazardous class/division/group along with the part number of the battery that must be used. Depending on the design of the portable unit, this FM label can be found on the back or the bottom of the radio housing.

19. To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a blasting area, or in areas posted: “Turn off two-way radio.” Obey all signs and instructions at all times.

20. Do not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.

21. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse, or other container with metal objects. All Batteries can cause property damage and/or bodily injury such as burns if a conductive material such as jewelry, keys, or beaded chains touches exposed terminals. The conductive material may complete an electrical circuit (short circuit) and become quite hot.

22. To avoid a possible explosion, do not replace the battery in any area labeled "hazardous atmosphere", and do not discard batteries in a fire.

23. If the radio battery contact area has been submerged in water, dry and clean the radio battery contacts before attaching a battery to the radio. Otherwise, the water could short-circuit the radio.

24. Do not submerge the radio in detergent solution. Do not use solvents to clean the radio. Spirits may permanently damage the radio housing.

25. If the radio has been submerged in water, shake the radio well so that any water that may be trapped inside the speaker grille and microphone port can be removed. Otherwise, the water will decrease the audio quality of the radio.

26. The XTS 5000 radio casting has two vent ports that allow for pressure equalization in the radio. Never poke these vents with any objects, such as needles, tweezers, or screwdrivers. This could create leak paths into the radio and the radio's submergibility will be lost.

27. Do not disassemble the radio. This could damage radio seals and result in leaks paths into the radio. Any radio maintenance should be performed only by a qualified radio technician.

28. Use only Motorola approved supplied antenna or Motorola approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the radio and may violate Federal Communications Commission, (FCC) regulations. Use of non-Motorola-approved antennas or batteries may exceed FCC RF exposure guideline.

General Housekeeping

Good housekeeping shall be of primary concern to all employees. The following shall be observed by **ALL EMPLOYEES:**

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

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

- Liquids, when spilled should be immediately wiped up. Report blood/body fluid spills to building maintenance.

- Gather up tools and return them to their proper place. Make sure that no tool has been left plugged in where it might fall or cause damage when the power is turned 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, and steam and air lines should be kept off floors by use of trees and hooks wherever possible.
- Scrap material and rubbish shall be placed 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.

Smoking Policy

Smoking is prohibited in all City facilities.
Smoking is prohibited in all City vehicles.