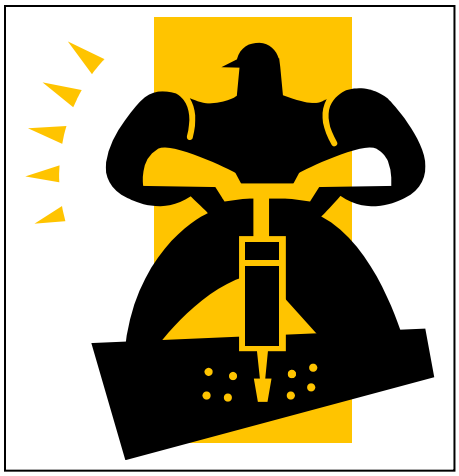
City of New Port Richey
Safety Manual

July 2011



Created by the New Port Richey City Safety Task Force

A Safer City Is Up to All Of Us!

CITY OF NEW PORT RICHEY

SAFETY TASK FORCE

MISSION STATEMENT

Our goal is to achieve an accident free, safe environment for the employees and the citizens of New Port Richey by promoting and encouraging safe work practices. Through employee involvement and a shared responsibility by all employees, the City will continually adopt and implement the best safety management practices available in order to provide a safer environment for all.

GUIDING PRINCIPLES

The Task Force is committed to the following principles:

1. To promote and develop safe working conditions
2. To raise employee awareness toward safety
3. To organize and implement programs that will provide the safest possible working environment for city employees
4. To help reduce city insurance premiums and worker's compensation claims
5. To act as a resource for individual departments
6. To make recommendations and review policy that enhances city safety.
7. To provide a safer city for the citizens of New Port Richey

Commitment to Safety

The City of New Port Richey is committed to providing employees with a safe and healthful workplace. It is the policy of the City that employees report unsafe conditions and do not perform work tasks if the work is considered unsafe. Employees must report all accidents, injuries, and unsafe conditions to their supervisors. No such report will result in retaliation, penalty, or other disincentive.

1) Employee recommendations to improve safety and health conditions will be given thorough consideration by the City. Management will give true attention to and provide the necessary resources for the correction of unsafe conditions. Management will promote and influence safe behavior for all employees.

Management will participate in establishing and maintaining an effective safety program through the oversight of the City Safety Task Force. This will include the following:

1) Holding all management and supervisory staff accountable for their safety responsibilities in their respective departments, jobs, crews or workplaces;
2) Providing safety and health education and training as needed; and
3) Reviewing and updating workplace safety policies, practices and performances.

The City's safety awareness will be accomplished by both positive reinforcement of correct and safe activity, and by disciplinary action, if necessary, for those who willfully or repeatedly work in an unsafe manner.

This policy statement serves to express the City's commitment to and involvement in providing our employees a safe and healthy workplace. This workplace safety and health program will be incorporated as the standard of practice for this organization. Compliance with these safe practices and those of any regulatory agency will be required of all employees as a condition of continued employment.

Adopted as of 9/28/11.

City Manager

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EMPLOYEE'S RESPONSIBILITIES FOR SAFETY

Department Heads

1) Ensure that safety is adequately budgeted for the department, job, etc.
2) Communicate safe work practices regularly within the department.
3) Attend departmental and City-wide safety meetings.
4) Formally recognize outstanding safety performance by any/all personnel.
5) Assist the Supervisor/Superintendent or any other personnel with the safety process as needed or as requested. This can include formal worksite periodic inspections.
6) Uphold and enforce all known safe work practices.

Division Heads/Supervisors

1) Ensure new-hire orientation is given to new employees, or is followed up at the work level.
2) Ensure employees are given training that includes safe work practices on equipment, tools, machines, processes, etc.
3) Personally conduct or designate qualified personnel to conduct regular inspections of the workplace.
4) Conduct frequent work discussions that include safe work practices.
5) Uphold and enforce safe work practices. This includes influencing safe behavior by positive reinforcement such as recognition of worker's safe work performance, and award for safe behavior. Enforcement action can also influence safe behavior when applied towards workers who blatantly perform unsafe acts, or who continually perform in an unsafe manner.
6) Investigate all incidents and "near misses" and take immediate action to prevent re-occurrence.
7) Provide safety meetings on a regular basis.

All Employees

1) Are to follow safe work practices, and if they are unsure of what is the correct/safe way to perform a task or a job, they are to ask their immediate supervisor or manager.
2) Must immediately report all unsafe equipment or tools to their supervisor or manager.
3) This includes reporting unsafe behavior of other workers, if these workers are approached and remain unwilling to correct their unsafe actions or conditions.
4) Are to uphold the safe work practices this organization has established.
5) If injured on the job, or become ill, immediately inform the supervisor or manger.

WORKSITE INSPECTION

1) All work areas, departments, and jobs need to be inspected on a regular basis to ensure safe work practices and safe and healthy conditions. For the most part, these inspections are to be conducted by the supervisor or his/her qualified and designated worker.
2) Each inspection may not be required to be formal although regular written completed inspections will be expected, especially those that require action or correction of any unsafe conditions or operation of equipment, tools, etc.
3) This includes the purchase of new equipment or tools, or the re-working or retrofitting of workstations or equipment so as to ensure that safety and health is considered.
4) This can include the assessment of a workstation or process that may need to be fitted to the worker (ergonomics) so as to avoid injury or illness.
5) If approached by workers who appear to have a true concern regarding a safety or health issue, supervisors or managers need to act accordingly and give attention to the matter.
6) All incidents (this includes property damage, equipment damage, incidents involving injury or illness, and near-miss type incidents) need to be investigated. In most cases, the department supervisor or manager will complete this investigation with information as to whether or not the accident/incident was preventable or negligent and if coaching/counseling, discipline or additional training is required as follow up.
7) Incidents that involve injury and illnesses need to be evaluated and analyzed for trends, common causes, and patterns so as to prevent further occurrences.

HAZARD PREVENTION AND CONTROL

1) Safe work practices will be developed and employees will be trained on using these safe work practices to avoid injury and illnesses. This may include the implementation of task or job hazard analysis.
2) To prevent hazards, environmental controls and personal protection equipment (PPE) need to be considered.
3) PPE will be provided, with proper training, as necessary, and its use enforced by supervisors and managers.
4) If feasible, administrative controls, such as reducing the duration of exposure can be implemented such as; with high noise level, confined spaces, and exposure to the elements.
5) Equipment, tools, machines, trucks, vehicles, and structures/facilities etc., need to be maintained in good working order by a continued preventative maintenance program or process.
6) All workers will be made aware of workplace emergency procedures. Training on this process will begin at orientation. Drills will be conducted periodically to assist in making all workers aware of the procedures in the event of an emergency such as fire or explosion.

SAFETY AND HEALTH TRAINING

Safety and Health Orientation

Workplace safety and health orientation begins on the first day of initial employment or job transfer. Each employee shall have access to a copy of the written safety program, through his/her supervisor, for review and future reference, and will be given a personal copy of any safe work practices, policies, and procedures pertaining to his/her job. Supervisors should question employees and should answer employees' question's to ensure knowledge and understanding of safe work practices, policies, and job-specific procedures. Supervisors are responsible to inform all employees that compliance with the safe work practices is required.

Job Specific Training

1) Manager and supervisors should receive basic safety and health training as it relates to their positions.
2) Supervisors will initially train employees on how to perform assigned job tasks safely.
3) Supervisors will carefully review with each employee any specific safe work practices, policies, and procedures that are applicable.
4) Supervisors will observe employees performing the work. If necessary, the supervisor will provide a demonstration using safe work practices, or remedial instruction to correct training deficiencies before an employee is permitted to do the work without supervision.
5) All employees will receive safe operating instructions on seldom-used or new equipment before using the equipment.
6) Supervisors will review safe work practices with employees before permitting the performance of new, non-routine, or specialized procedures.

Material Safety Data Sheets

Potentially hazardous chemicals are present in virtually all areas of the workplace. Chemicals such as office cleaning supplies, glues, solvents, pesticides, herbicides, paints, oils, fuels, and water treating chemicals are some examples. It is important that chemicals are stored and used in a safe manner.

A Material Safety Data Sheet (MSDS) is a form with data regarding the properties of a particular substance and provides workers and emergency personnel with procedures for handling or working with particular substances or chemicals in a safe manner. The forms include information such as chemical name and synonyms, hazardous ingredients, health hazards, first aid, protective equipment, physical data, reactivity, storage, and spill and leak procedures.

As part of insuring the safety and health of employees and others who enter City facilities, an MSDS notebook or binder is to be located and maintained in every Department and /or Division and is to be posted in a common area (such as a break

room or entry way), so it is readily available to any person on that site for chemicals or substances stored or used at those locations.

Every department shall make an annual MSDS review within their department to ensure the availability of the sheets and deliver appropriate training if necessary.

Periodic Training of Employees
All employees will be retrained periodically on safe work practices, policies and procedures, and when changes are made to the written safety program.

If necessary, individual employees will be retrained after the occurrence of a work-related injury caused by an unsafe act or work practice, or when a supervisor observes employees displaying unsafe acts, practices, or behaviors.

Work in other Departments

Employees may be assigned from time to time to work in other departments. An employee working in another department shall abide by not only the safety rules and practices of their own department, but also those of the department in which they are working. Before starting any work, employees shall report to and be advised by the supervisor or person in charge of any hazards or performance requirements specific to that department.

FIRST AID AND MEDICAL ASSISTANCE

There will be adequate first aid supplies and/or adequate first aid kits available at each workplace and or vehicle if designated. Where required, or in the case of an emergency where the workplace is located in a remote location and emergency medical assistance cannot arrive within a few minutes, there will be a designated certified first aid (and possibly CPR) trained employee who can assist in first aid emergency cases. Employees who receive work related injuries or illnesses will be given immediate attention in regard to the nature of their injury or illness.

Every department shall make annual first aid supply inventory checks wherever first aid supplies are stored. This is to ensure the availability and effectiveness of the supplies due to shelf life issues.

INCIDENT INVESTIGATION

Incident Investigation Procedures
The supervisor at the location where the incident occurred will perform an incident investigation. Incidents can include property damage, near misses and workplace injuries and illnesses. These investigations are to assess the nature and the cause of

the incident, not to place blame on personnel. Supervisors need to investigate incidents using procedures that include:

1) Implement temporary control measures to prevent any further injuries to employees or damage to equipment or property or the public.
2) Review the equipment, operations, and processes to gain an understanding of the accident situation.
3) Identify and interview (also document responses) each witness and any other person who might provide clues to the causes
4) Investigate causal conditions and unsafe acts; make conclusions based on existing facts.
5) Complete the incident investigation report
6) Provide recommendations for corrective actions
7) Indicate the need for additional or remedial safety training, if needed.

Incident investigation reports must be submitted to the designated management personnel as soon as possible after the incident.

Incident Report Forms

Reporting an incident or injury will be accomplished by using one of the City authorized forms. Forms should be filled out in a timely manner (within 24 hours excluding weekends). At present the following forms are used:
1-First Report of Injury or Illness-(Gallagher Bassett Form)-filled out by employee
2-Supervisor Accident Investigation Report for Workers Compensation Injury
3-Supervisor's Injury Investigation-Strain Supplement Form

To correctly assess the nature and causes of the incident, the following information should be obtained:

1) What the employee was doing just prior to the accident
2) Were there any witnesses? What were their names? Did the witnesses provide statements of the incident?
3) What happened? ("Ladder kicked out and employee fell to floor", "forklift struck wall, wall collapsed.")
4) What part of the body was affected by the incident? (left eye, right arm, left leg right hand, etc.). And what was the nature of the injury? (object in eye, lacerated finger, etc.),
5) What was the object or substance that directly harmed the employee (if object/ substance are known)?
6) Was the injury fatal?

RECORD KEEPING PROCEDURES

The City will control and maintain all employee accident and injury records. Records are maintained for a minimum of five (5) years following the end of the year to which they relate. The data on the Injury and Illness log and posting of the Summary of Work-related injuries and illness will be in accordance with State and Governmental regulations. The following will be included in the record keeping process:

1) Log of Work-related Injuries and Illness
2) Summary of Work-related Injuries and Illnesses
3) Incident investigation reports
4) Workers' Compensation Notice of Injury

GENERAL SAFETY RULES & PROCEDURES

Personal Rules

It is the responsibility of every employee to know and adhere to the safety rules and regulations, which apply to the area in which he/she is working or may be visiting.

1) Report all injuries and property damage to your supervisor immediately
2) Report unsafe conditions to your supervisor
3) Fighting, disorderly conduct, horseplay and practical jokes are prohibited and may call for disciplinary action
4) Intoxicants or persons under the influence of alcohol will not be permitted on City property.
5) Narcotics, or the use of, will not be permitted on City property, except as prescribed by a physician. This varies on a case by case basis according to the medication and equipment operated by the employee.
6) Smoking regulations shall be observed and obeyed. **Smoking in City passenger vehicles, trucks, or any mobile equipment shall be prohibited.**
7) Unauthorized firearms or explosives will not be allowed on City property pursuant to state law.
8) No persons will be permitted to work if his/her ability or alertness is so impaired through fatigue, illness, prescription and non-prescription medications or other causes, as to make it unsafe for him/herself or fellow workers.
9) Do not wear jewelry, loose clothing, neckties or loose headbands when working around or operating rotating machinery and equipment.
10) Posted restrictions for personal protective equipment (PPE) requirements shall be observed.

Protective Equipment and Devices

1) Guards installed on machinery and equipment, barriers, and other protective devices provided for your protection, shall not be removed and will be used in accordance with established rules, practices, policies and procedures.

2) Personal protective equipment (PPE) shall be worn when performing work requiring such protection.
3) All fire safety equipment such as fire extinguishers, hose racks, hose reels, detectors, fire alarms and fire lanes shall be kept clear of obstructions.
4) Notify your supervisor of any fire safety equipment that is damaged or will not operate.
5) Only authorized personnel will enter roped off or barricaded areas.
6) Emergency equipment will not be removed or used except for simulated or actual emergencies.
7) Never operate machinery and equipment with guards removed.
8) Report all instances where guards are not in place, inoperative or improperly installed or are in need of replacement or repair.
9) Report all defects in personal protective equipment to your supervisor for replacement or repair.
10) It is each employee's responsibility to wear goggles, face shields and all other protective clothing or equipment for protection as required by safety rules, policies and procedures contained in the Policy or as directed by your supervisor.

Operational Hazards

1) Walkways, aisles and working areas shall be kept clean and free of obstructions.
2) Good housekeeping shall be maintained in all areas (this includes offices and under desks).
3) Compressed air and other gases under pressure must be used only for the purpose intended.
4) Do not operate machinery or equipment unless you are trained and authorized to do so.
5) Use the right tools for the job.
6) Inspect tools regularly for damage and defects. Replace or turn in all defective tools.
7) Never use a portable electrical tool unless it is in good condition.
8) Portable electrical tools are required to be grounded at the case or frame or grounded by use of a three wire conductor and plug, if not double-insulated and if an extension cord is to be used with the tool, it must also be of the three wire grounded type. (Double-insulated portable electrical tools are internally grounded by incorporating insulation in case or frame when designed. The wire containing male plug will have two prongs in place of three. Check the plate on the tool to ensure that it states that the tool is double-insulated and will not require prescribed ground wire and plug.)
9) In wet locations wear rubber boots and gloves or stand on a good insulated mat or platform. Use only low voltage equipment in such locations, if possible.
10) Never use or try to repair unfamiliar power equipment.
11) Always protect electric cords from damage by oil, ensure insulation is not frayed or broken, and keep clear of aisles where they may be run over by trucks or other equipment, or cause a tripping hazard.

PERSONAL PROTECTIVE EQUIPMENT

Gloves
On operations where gloves are necessary, wear the proper type as specified by your supervisor and by the MSDS if working with or around hazardous materials.

Hard Hats
When required, hardhats are provided by the City to protect your head against the danger of head injury from falling or flying objects or from electrical shock and burns. Be sure your hat is in good condition.

Hearing Protection
In an environment of loud noise created by machinery or equipment it is essential for employees to utilize hearing protection devices to protect their hearing. Some equipment requires hearing protection being worn during the equipment's operation. Examples of hearing protection are OSHA approved ear plugs or protective head sets.

Respirators
Respirators are designed to filter the air you breathe. Various types of respirators are provided for protection. These are filter-type respirators for employees working in dusty areas and handling dust-producing materials. They are also required when engaged in paint spray operations. A respirator is not a substitute for a gas mask or self-contained breathing apparatus. Check with your supervisor for more specific information.

Foot and Toe Protection
Foot and toe protection should be designated by the department depending on the type of work performed. Steel or carbon toe boots or shoes and non-slip soles are typical protection for employees working in and around heavy equipment areas.

Safety Glasses, Goggles and Face Shields
No one can replace your eyes-your greatest asset. Do all you can to protect them.

1) Goggles or face-shields should be worn by all employees performing work that exposes them to eye injury. Employees not performing the work, but who are in the area of exposure such as helpers and visitors, should also wear eye protection in areas that require it.
2) Welding hazards can be controlled easily by use of suitable personal protective equipment and proper work procedures. Welding goggles or helmets must be used. Safety glasses must also be worn whenever secondary finishing is done in the work place.
3) Appropriate goggles with filter lenses shall be used for such operations as oxyacetylene welding, cutting, lead burning and brazing. Where danger of eye

injury is increased by grinding, buffing, sandblasting, etc., additional precautions such as the use of side shields for safety glasses must also be employed.
4) Do not take chances with eye injuries – immediately contact your direct supervisor when injured.

Personal Clothing
The clothes you wear are a personal matter if uniforms are not provided. Clothing must adhere to the requirements set forth by the City.

Clothes can be a safety hazard if they are loose or ragged and the employee works around machinery or equipment. Clothing caught in moving machinery can cause serious injury or death.

MACHINE SHOP OPERATIONS

Machine Shop Safety-General
1) Use only those machines and equipment that you are qualified and authorized to use. Wear eye protection at all times where eye hazards exist.
2) Before turning on machinery make sure everyone is clear.
3) All guards and safety devices must be in place and properly adjusted before operating a machine
4) Do not leave a machine running unattended.
5) Machines must be stopped and power turned off before changing chucks or leading heavy items into the chucks. Make sure the chuck is tight and the chuck key is removed before restarting the machine.
6) Never brake or slow down a machine with your hands. Turn off the power and wait – it will stop itself.
7) Keep all machines clean. Remove chips with a brush or a stick-not your hands.
8) Keep all areas clean of oil, solvents and coolants.
9) Get help with heavy objects or use mechanical lifting equipment.

Grinding Wheels
1) Never use a grinder without a wheel guard.
2) Eye protection shall be worn when using a bench or floor stand grinder, or a hand-held portable grinder.
3) Cracked or chipped grinding wheels will be replaced and wheels dressed and inspected periodically.
4) Proper clearance will be maintained between the wheel and guards.

Drill Press
1) Be sure that the work is securely bolted or clamped to the table or held in a vise or jog. Do not try to hold it by hand.
2) Be sure that the table clamps are properly tightened so that the table cannot move.
3) When setting up or removing work, shut off power, even though the tale or arm has been moved out of line.

4) Always remove the key from the chuck immediately after use.

SAFETY IN CONSTRUCTION, BUILDINGS & GROUNDS MAINTENANCE

Building & Grounds Areas

Unsafe conditions in buildings and ground areas require repair and maintenance to render them safe for employees and the public. Report all unsafe conditions to your supervisor for correction without delay.

Ladders

1) Ladders should be inspected for damage or oil or other slippery substances prior to each use. If damaged or un-repairable take out of use immediately.
2) Ladders should be placed so that the distance from its foot to the wall is one-fourth the length of the extended ladder.
3) Never separate the parts of an extension ladder. Use of the top section as a ladder is prohibited.
4) Do not carry heavy or bulky objects down a ladder. Always use a rope or hoist.
5) Always face the ladder when going up or down. Always look up when you are going up a ladder.
6) Make sure that there are 3 points of contact with ladder at all times (i.e.,. both hands and one foot or both feet and one hand).
7) Move the ladder as the work progresses. Don't work any farther than one arm's length from the ladder. Belt buckle area should be inside of ladder rung area as a general guideline.
8) Only one person on a ladder at any one time.
9) Ladders will not be used as skids, braces, scaffold members, or for any other purpose than that for which they are intended.
10) Never climb a ladder with greasy, muddy or otherwise slippery hands or shoes.
11) Do not use metal ladders in areas where exposure to electric wires or equipment is possible.
12) When working with extension ladders, high off the ground, it is recommended to have a second person to butt the ladder, or in lieu of butting, tie off or anchor the lower end of the ladder to prevent "kicking out" of the lower end of the ladder.

Scaffolds and Platforms

1) Make provision for uniform level and compacted footing before installing upper levels and make sure that all wheel locks are in place.
2) Tie into structure or building to prevent tipping.
3) All side braces (cross-bracing) shall be installed on tubular welded frame scaffolding.
4) Only scaffold boards in good condition are to be used on scaffolds. Each scaffold board must overlap the scaffold sides by a minimum of six (6) inches.
5) Never stand on the overhang portion of a scaffold board.
6) Guard railing shall be installed on scaffolding when required.

Excavations & Trenching

1) Trenching and shoring at excavation sites should never be done without a qualified person at the site and/or supervising the process.
2) The sides of excavations will be properly and substantially braced and shored, or the sides will be sloped away from the excavation, or a trench box of substantial construction may be used.
3) The type of shoring systems to be used will be determined by soil conditions, vibrations in the area, stresses imposed by nearby buildings and other pertinent conditions.
4) Where excavations are to be made below adjacent foundations or pavements, these structures will be suitably braced or shored as long as the excavation is open to prevent collapsing.
5) Dirt from the excavation and other materials will not be piled closer than two (2) feet to the edge, and loose boulders, stumps and other debris that could slide into the excavation will be removed from the area.
6) Bridges, walkways, guardrails, barricades, warning signs, and lights will be placed over or near open excavations as required.
7) Ladders shall be placed at trenches to provide safe and convenient exits from the area in case of cave-ins.
8) Where it is necessary to under cut the side of an excavation, overhanging materials shall be safely supported.
9) Safety hard hats should be worn by employees engaged in excavation and trenching operations.

Construction Hazard Identification

All construction work will be clearly identified by signs and protected barriers suitably marked with reflective materials and illumination for easy sighting after dark and traffic channeling devices shall be used where applicable.

Grass Cutting

1) All equipment will be inspected prior to each use. This includes checking all guards on equipment.
2) Mower operators will wear eye and ear protection and sturdy work shoes at all times.
3) No adjustments will be made by the operator or maintenance person while machine is running.
4) Gasoline for lawnmowers and other lawn care equipment will be kept in safety cans plainly lettered “Gasoline”. All sources of ignition will be kept clear when fueling. Fueling will not be done while engines are running.
5) Smoking **IS NOT** allowed anywhere near location of fuel tanks or cans (within 25 feet).

Floors & Building Area

1) Building floors should be clean and free of obstructions or slippery materials.
2) Floors will not be cleaned with flammable liquids.

3) Adequate ventilation will be provided if cleaning is done with liquids containing toxic material such as ammonia to remove vapors. If any problem occurs, contact your supervisor immediately (be familiar with precautions and first aid procedures for that particular substance before using).
4) Dust, which can explode under certain conditions, will be kept down during sweeping by spreading an approved sweeping compound over the floor.
5) Spitting on floors will not be tolerated at any time or under any circumstances.
6) Extreme care shall be taken to avoid excessive waxing or polishing of floors to prevent slipping accidents. Use only non-skid wax.

Exterior of Buildings

1) Materials will not be stored under or piled against buildings, doors, or exits or under stairways.
2) Roofs will be kept free of refuse and other materials.
3) Grounds around City buildings are to be kept free of trash and refuse that could harbor snakes or rodents and mowed at regular intervals.

SUPPLY AND MATERIALS HANDLING OPERATIONS

Lifting, Carrying & Moving Materials

The number one cause of on-the-job injuries is physical overload. These injuries are caused by lifting (too heavy a load or lifting improperly), straining, overreaching, bending, and twisting. To protect your back against injury, learn and use proper lifting techniques, never bend or twist while lifting or carrying, and whenever possible, use a mechanical aid or get help with the load from another employee or supervisor.

The proper steps in lifting safety are:

1) Make sure your route of movement is clear.
2) Never lift beyond your strength. Get help.
3) Always crouch down to what you are going to lift. **DO NOT BEND DOWN** to the load.
4) Get good footing. Wear appropriate footwear. Place feet comfortably apart.
5) Check gripping surface for hazards (nails, splinters, snakes, etc.)
6) Get a firm grip on the item to be lifted.
7) Keep your arms straight and your back in as nearly a straight up-and-down position as possible.
8) Lift gradually. Don't jerk upwards.
9) Avoid twisting motions by shifting position of the feet.
10) Lift by standing up or by pushing up with the leg muscles. This takes the strain off of the back muscles.
11) If, after completing these steps you find you cannot lift the load, **GET HELP.**
12) Put things down by generally reversing the methods.

Bags & Sacks

Bags and sacks may be lifted by stooping down as far as possible and rolling the bag or sack up to the knees, chest and shoulder before straightening the legs, and carrying

with the back vertical. Place on hip so the bag or sack rests partly on the shoulder, arm and back. Be sure of your grip and footing.

Barrels & Drums
Barrels and drums may be up-ended by grasping both ends, press down with one hand and lift the other in a rocking fashion until the drum is balanced on the bottom chime (bottom lip of barrel). The lower grip may then be released and the drum placed on end. Keep feet in the clear. Do not drop drums or barrels.

Long Objects
Long objects should be carried on the same shoulders (left or right) of all persons making the carry. All persons should be in step.

Hazardous Materials
At all times when handling hazardous materials use protective clothing, gloves and goggles. Do not remove a wet or leaking container. Follow MSDS for all hazardous materials.

Flammable & Explosive Materials
All flammables and explosives will be moved only in properly marked and approved containers by properly trained and authorized personnel. Never transport flammable liquids in open containers.

Boxes, Cartons, Packages & Other Material.

1) A box, carton or package should never be handled by the steel strapping bands. A hand truck or forklift should be utilized when required.
2) Lift all cartons, packages or boxes properly. Always lift with your legs, not with your back.
3) When two or more persons are required to handle an object, one person should be in charge and give signals for lifting, moving, powering and dropping in unison.
4) Before cutting metal strapping, make sure that no one is standing where he/she might be hit by loose ends of strap. (Eye protection should be worn during these operations.)
5) To cut bands, place one gloved hand on the strap to prevent from springing back.
6) Before handling containers, inspect them for protruding nails, ends of wire, splinters and sharp ends of metal bands.
7) Package or box all loose items before moving.
8) Wipe off oil, grease, dirt or other foreign matter before lifting.
9) Wear gloves when moving rough; burned; jagged objects and those with sharp corners. Grip carefully before moving.
10) Be sure you know the direction of travel before you pick up a load and make sure that the area of travel is free of debris or obstruction.
11) Stay at all times within the prescribed safety aisles in warehouse storage areas.
12) Never attempt to catch a heavy falling object, this can cause injury.
13) Use both hands to remove a box or other material from a bench or shelf.

14) Do not stand on a box or truck when placing materials on a high pile or when reaching for an object above your head. Use an approved ladder.

Hoisting & Lifting Equipment
Never overload hand operated or electric hoists. The rated load should be legibly and permanently marked in a prominent location on all hoists and lifting equipment including jacks. Rated load limits will not be exceeded.

STORAGE OF MATERIALS

Storage Facilities & Areas
1) Dangerous materials such as flammable liquids and explosives will be stored in special buildings or cabinets. Signs will be posted to identify these materials i.e., "FLAMMABLE LIQUIDS – NO SMOKING". Strict control and enforcement of the restrictions assigned to these facilities and areas are of primary importance in the prevention of fire and explosion.
2) All sources of ignitions will be prohibited in all storage buildings and areas.

Piling & Stacking Materials
1) Materials shall be piled in neat stacks, stabilized by dunnage/stingers if necessary. Leaning or unbalanced stacks will be re-piled immediately to prevent their falling
2) Stacked material will be kept at least 18 inches away from electric light fixtures. Fire extinguishers shall not be obstructed or blocked.
3) Signs will be posted where smoking is prohibited.

Oily Rags & Waste Material
Oily rags and other wastes will be placed in fire-resistant enclosed containers provided and all containers shall be emptied on a regular basis.

Stored Materials
1) Stored materials shall not block access to emergency equipment and exits.
2) Large, bulky or unusually heavy materials will be stored near entrances to minimize the amount of handling needed to make movement easier.

Lumber Storage
Lumber will be stacked level, stable and shall be self supported. Used lumber will have all nails removed before it is stacked for storage.

Cement & Lime Bags
1) Bags of cement and lime will not be stacked more than ten bags high without setback, except when restrained by wall of appropriate strength.
2) The bags around the outside of stacks shall be placed with the mouth of the bags facing the center of the stack.
3) During un-stacking, the entire top of the stack shall be kept reasonably level.

4) Store in dry area. If exposed to powdered or dry lime in direct skin contact brush off contents, do not wash off with water since this will cause skin to burn.

Bricks & Blocks

1) Bricks shall be stacked on even, solid surfaces, shall not be stored on scaffolds or runways in excess of normal supplies for immediate laying operations or in excess of safe load limit of scaffold or runway.
2) Floor, wall and partition blocks shall be stacked in tiers on solid level surfaces. When required, the stack shall be set back and secured to prevent toppling.

Steel

Reinforcing, sheet and structural steel shall be stored as follows:

1) Reinforcing steel will be stored in orderly piles away from walkways and roadways.
2) Structural steel will be securely piled to prevent members sliding off or pile toppling over.
3) All storage and piling of steel will be neat and orderly and secure.

Pipe

Pipe shall be stacked and blocked so as to prevent spreading or rolling. Separate stacks will be made for each size.

All PVC pipe should be stored with protection from sunlight to ensure the integrity of the pipe.

Sand, Gravel & Crushed Stone

When this material is withdrawn from stock piles by equipment operators they will ensure that no overhanging or vertical face exists. No operator will load from any pile that overhangs his/her equipment.

General Housekeeping

1) All scrap lumber, waste material and rubbish shall be collected and stored in piles or containers for regular removal.
2) Empty bags having contained lime, cement and other dust producing materials shall be removed from work areas regularly.
3) All stairways, passageways, gangways and access ways shall be kept free of materials, supplies and obstructions at all times. Never store combustibles under stairwells.
4) Protruding nails in boards, planks and timbers shall be removed, hammered in or bent over flush with the wood.
5) Tools, materials, extension cords, hoses or debris shall not be strewn about in a manner which may cause tripping or other hazards.
6) Loose or light material shall not be stored or left on roofs or floors that are not closed in, unless it is safely secured.

Working Aisles
Aisle space should be kept to a minimum as it limits storage space but aisles should be adequate for handling the type of materials to be stored.

WOODWORKING SAFETY

Woodworking Crews
Woodworking machines are dangerous because of the high speeds at which cutting edges are usually operated. Employees are exposed to serious eye, hand and finger injuries, as well as health hazards caused by small particles of wood dust in the air and on the floors. Machine guards, eye protection, safe-operating procedures, proper ventilation and exhaust equipment will protect workers against these hazards when installed and used properly.

1) Only qualified and authorized personnel will operate woodworking machines.
2) No woodworking machine will be cleaned or repaired while it is operating. When maintenance is necessary, the machine will be completely shut down, with its control switches locked.
3) No one will remove a guard from any saw or other woodworking machines except for maintenance or replacement.
4) Operate only those machines you are assigned and qualified to use.
5) Never leave a saw or other machine running unattended.
6) All woodworking machines shall be completely stopped before removing chips, sawdust or cut-off ends of lumber.
7) Horseplay will not be permitted in the shop at any time. An operator's attention will not be distracted while working with machines in operation.

Protective Equipment
Eye protection shall be worn during sanding and grinding operations or when working on wood lathes and power saws or any other device presenting eye hazards.

Floors
Shop or project floors will be kept in good repair. Sawdust, wood scraps or other objects which could cause personnel to slip or stumble, will not be allowed to collect on floors.

Adequate working space will be provided around machinery and the floor will be provided with anti-slip footing, if necessary.

Cutting Tools
1) All cutting tools will be kept sharp and in good condition at all times. Defective tools will be repaired or replaced immediately. All woodworking tools will be stored in a place provided for this purpose.
2) Cracked or defective blades will not be used at any time.

Waste Removal

Chips or dust will never be removed from machinery by hand. Brushes will be used to safely clean woodworking machinery. Waste materials will be cleaned up and disposed of as often as necessary. Waste should be collected and disposed of properly.

Lighting

Good lighting is important to safety in all woodworking projects. Adequate illumination will be provided in all shop areas. Suitable fixtures will be provided for machine illumination at points of operation if the fixed lighting is not sufficient.

Table Saws

1) Saws will be located so as not to be directly in line with other equipment, to prevent nearby workers from being hit by material that might kickback from the saw. If space does not permit this type positioning, a meter or plank barricade should be placed between the saw and other machinery or persons.
2) In no case will hands be placed on back of saw or work to be pulled through from the back of saw.
3) Stock will be held against a gauge or fence and never sawed freehand.
4) When ripping, the operator will stand out of the line of the stock being cut, making sure his/her hands and fingers are out of the danger area.
5) Remove any material that may have been placed upon the machine table before you start the machine. Do not pile material on the machine table.

Pusher Sticks

Pusher sticks will be used when sawing short or narrow pieces of work. Guards will be securely in place when pusher sticks are used. Pusher sticks shall be utilized in lieu of hands being in close proximity to the saw blade.

Portable Circular Saws

1) Portable circular saws will incorporate permanent, self-adjusting guards. All exposed areas of the saw blade will be enclosed both during and after cutting operations. These saws will be checked periodically for cracked or defective blades, which will be immediately discarded.
2) Eye protection shall be worn at all times when using portable electric circular saws to prevent flying particles from getting into the eyes.
3) Leave the saw in the cut until the blade stops rotating, and never fasten the hood guard back or lift the guard by hand at any time, especially when the saw is operating, unless the guard is designated with a lever for lifting.
4) Don’t saw material unless it is properly supported.
5) Be sure the saw has a three conductor electrical cord and a three-prong plug or is double-insulated. Use grounded receptacles. Never cut off the ground prong.
6) Be careful of cutting your electrical cord or tripping over it. Keep the cord out of water, unkinked, and out of the way of vehicle and pedestrian traffic.
7) Check that the guard is in good working order and in good condition.

WELDING SAFETY

Welding & Cutting Operations

Welders are exposed to many types of injuries in the course of their work. Harmful light rays from welding flames and arc can seriously injure eyes and burn skin. Poisonous fumes and gases are hazards of welding operations, and severe electrical shock from Arc equipment is a definite possibility. Because of the numerous possibilities of personal injuries and property damage, safe welding practices must be observed.

1) Only qualified personnel who are trained and familiar with required safety practices will be authorized to perform welding operations, using oxyacetylene and arc welding and cutting equipment.
2) Flame-producing equipment is prohibited in the vehicle maintenance shop except in areas where required safety controls shall be in effect.
3) Welders will wear necessary protection when actually performing welding operations. Long sleeve cotton shirts and ankle length pants should also be worn.
4) It is the welder's responsibility to obtain and work behind screens, especially when not working in an enclosed welding shop or outside area, where property and other personnel are exposed to flying particles, flash burns to the eyes, fire and explosion hazards.
5) When arc welding, a welder must wear a welder's helmet, gloves and other protective equipment required on the job.
6) Always wear welding goggles or use a welding shield when spot welding. Be sure others whose duties bring them close to the work area are provided with eye protection as well.
7) Short ends of arc welding electrodes will be deposited in containers provided for that purpose to prevent fire and tripping hazards.
8) When arc welder is used the rod shall be removed from the holder when work is completed.
9) Whenever any welding is done, a fire extinguisher of the proper class shall be immediately available in the welding work area and maintained in a state of readiness for instant use in the event of a fire.

Cylinders, Hoses & Regulators

1) Always secure cylinders in an upright position. The valve protection cap will not be removed until the cylinder is secured and about to be used.
2) Be sure hands or gloves are free of oil or grease before setting up work.
3) Always attach an oxygen pressure-reducing regulator before using oxygen from cylinder.
4) When "cracking" the oxygen cylinder valve, stand at the side or rear of the cylinder outlet. Open the oxygen cylinder valve slightly for an instant, and then

close it. This will clear the valve of dust or dirt. Then open the valve – slightly at first– then all the way.

5) It is important that the regulator pressure-adjusting screw be released before opening the cylinder valve. This prevents possible damage to the regulator and gauge.
6) When connecting the oxygen pressure-reducing regulator to the oxygen cylinder, always use a regulator wrench or key.
7) Test connections for leaks around the oxygen cylinder valve stem, oxygen regulator inlet connections at the cylinder valve, all hose connections and blow-pipe oxygen valves. Use nothing except soapy water for testing
8) After shutting off a cylinder, make sure all pressure is released from both gauge diaphragms. Be sure gases are shut off before you put the torch down.
9) Never completely empty cylinders. Leave five pounds pressure to prevent contamination back flow.
10) Do not expose cylinders to damage from heat or electrical arc.

Operational Hazards

1) When an electrode holder is not in use it must be placed where neither the holder nor the electrode can cause an arc.
2) Use an igniter or pilot light torch. Do not use matches. Do not light the torch with both valves open, it may cause a backfire.
3) Gasoline tanks and other containers of flammable or combustible liquids will be drained, flushed and steamed (if steam is available). If this is not practical (to use steam) fill completely with water before any welding is done. Be sure container is vented. Sealed containers will not be welded under any circumstances.
4) Fumes and dust accumulating in the air during welding of cadmium plated metals is a major health hazard. Welding or cutting indoors or in a confined space involving cadmium-bearing or cadmium-coated base metals shall be done using local exhaust ventilation or airline respirators. Where exhaust ventilation is used outlets to such systems shall be as far removed from the workplace as is practical. Respirators should be used by the welder for his/her protection against fumes and dust if the ventilation provided is insufficient. Outdoors such operations shall be done using respiratory protective equipment such as a fume respirator approved by the U.S. Bureau of Mines for such purposes.
5) If you are required to weld the following types of material, contact your supervisor for further instructions: Fluoride compounds, Zinc, Lead, Beryllium, Cadmium, Mercury, cleaning compounds, or stainless steel.
6) Do not attempt to repair a leaking cylinder. Remove it immediately.

ELECTRICAL SAFETY

Electrical Wires & Extension Cords

1) Always inspect all wires and extension cords for cuts, frays, missing ground, and other damage before use. Treat all electric wires as live wires. Always select proper size (gauge) and rating (amps) for the intended use.
2) Do not drag cords over sharp edges or run cables across aisles where trucks can damage them.
3) Pull the plug instead of yanking the cords. Never remove a cord if it is in use. Electricity can jump across exposed prongs in a plug.
4) Keep electric cables away from hot water lines which can harm insulation.
5) Keep cords clean. Never allow an extension cord to lay in water, oil, grease or any solvent and wipe clean before and after use.
6) Excessive scraping, kinking and stretching will cause damage to power cables and cause premature failures and possible shock or burns.
7) Extension cords are for temporary use only in a shop setting. When possible a power strip with surge protection should be utilized. Even with a power strip do not overload the capacity of the strip.

Electrical Equipment

1) Ground provided on electrical equipment shall not be disconnected or broken.
2) Shock, no matter how slight, is a warning something is wrong. Tag the equipment and have it checked before reusing.

Electrical Repairs

1) Ensure current is off before attempting to make electrical repairs and consider lockout-tagout procedures.
2) Exercise care in removing or replacing light or power fuses, use fuse pullers.
3) Live wire work is defined as work on wires, switches, starters, panels, or other electrical equipment while the potential of 25 volts or more of electricity is present.
4) No live wire work will be performed by unauthorized personnel.
5) Only qualified personnel should attempt repairs on electrical equipment.
6) All electrical installations will be installed and maintained in accordance with latest provisions of the National Electrical Code.
7) Persons working around electrical circuits will not wear watches, rings or other metallic objects which could act as conductors of electricity.
8) Personnel will treat low voltage systems with the same respect as high voltage circuits. Severe shock resulting in death can be caused by contact with lines carrying low voltages.
9) Care will be taken to avoid contacting low voltage lines when working on poles, ladders or in other high places; the shock may be sufficient to cause worker to lose footing and fall.
10) No equipment will be operated, erected, installed or stored, or any part thereof, within close proximity (10 feet) of any high-voltage power lines, unless danger from accidental contact has been effectively guarded against by: de-energizing and grounding high voltage lines, erection of mechanical barriers to prevent physical contact with high voltage conductors, or installing and insulated cage-type guard or protective device about the boom or arm of the equipment.

11) The first rule to remember when required to perform maintenance or repairs on electrical equipment is, turn off the current.
12) When it is necessary to wear safety gloves, only those designed for electrical work will be used. Gloves will be inspected for cuts, punctures or signs of wear. Never use safety gloves with voltages higher than the gloves insulation rating.
13) To avoid cutting or tearing rubber electrical gloves, personnel will wear the leather liner over their safety gloves when actually working on high-voltage equipment.
14) All rubber goods used in electrical work will be given a voltage test annually, except that rubber gloves in active use will be tested every three months.
15) Report to your supervisor any leaking water joints which are near any motors or other electrical equipment.
16) Unless absolutely necessary avoid working on electrical equipment in wet conditions.
17) If you find sparking or smoking motors or other electrical equipment, turn off the power and report the condition at once.
18) Only qualified and authorized persons will install and maintain electrical facilities and equipment. Two qualified employees will work together when high voltage circuits or energized circuits of any voltage are involved.

Lockout/Tagout Program

Objectives

To establish a means of positive control to prevent the accidental starting or activating of machinery or systems while they are being repaired, cleaned and/or serviced.

1) To establish a safe and positive means of shutting down machinery, equipment and systems.
2) To prohibit unauthorized personnel or remote control systems from starting machinery or equipment while it is being serviced.
3) To provide a secondary control system (tagout) when it is impossible to positively lockout the machinery or equipment.
4) To establish responsibility for implementing and controlling lockout/tagout procedures.
5) To ensure that only approved locks, standardized tags and fastening devices provided by the company will be utilized in the lockout/tagout procedures.

Areas of Responsibility

1) (Designated qualified person by name or position) will be responsible for implementing the lockout/tagout program.
2) (Designated qualified person by name or position) are responsible to enforce the program and insure compliance with the procedures in their department.
3) (Designated qualified person by name or position) is responsible for monitoring the compliance of this procedure and will conduct the annual inspection and certification of the authorized employees.

4) Authorized employees are responsible to follow established lockout/tagout procedures.
5) Affected employees (all other employees in the facility) are responsible for insuring they do not attempt to restart or re-energize machines or equipment which are locked out or tagged out.

GUIDELINES-The following guidelines are minimal general requirements. Individual departments may have Lock-Out/Tagout procedures that exceed these guidelines.

Preparation for Lockout/Tagout

Employees who are required to utilize the lockout/tagout procedure must be knowledgeable of the different energy sources and the proper sequence of shutting off or disconnecting energy means.

The four types of energy sources are:

(1) Electrical (most common form)
(2) Hydraulic or pneumatic
(3) Fluids and gases
(4) Mechanical

More than one energy source can be utilized on some equipment and the PROPER procedure must be followed in order to identify energy sources and lockout/tagout accordingly.

Electrical

1) Shut off power at machine and disconnect.
2) Disconnecting means must be locked or tagged.
3) Press start button to see that correct systems are locked out.
4) All controls must be returned to their safest position.
5) Points to remember:
    a) If a machine or piece of equipment contains capacitors, they must be drained of stored energy.
    b) Possible disconnecting means including the power cord, power panels (look for primary and secondary voltage), breakers, the operator's station, motor circuit, relays, limit switches, electrical interlocks.

Hydraulic/Pneumatic

1) Shut off all energy sources (pumps and compressors). If the pumps and compressors supply energy to more than one piece of equipment, lockout or tagout the valve supplying energy to this piece of equipment.
2) Stored pressure from hydraulic/pneumatic lines shall be drained or bled since release of stored energy could cause injury to employees.
3) Make sure controls are returned to their safest position (off, stop, standby, inch, jog, etc.).

Fluids & Gases

1) Identify the type of fluid or gas
2) Close valves to prevent flow, lockout/tagout.
3) Determine the isolating device, close, and lockout or tagout.
4) Drain and bleed lines to zero energy state.
5) Check for zero energy state at the equipment
6) For those systems with electrically controlled valves; they must be shut off, locked or tagged out

Mechanical Energy (Gravity activation, or stored in springs, etc)

1) Block out or use die ram safety chain.
2) Lockout or tagout safety device.
3) Shut off, lockout or tagout electrical system.
4) Check for zero energy state.
5) Return controls to safest position.

Release from Lockout/Tagout

1) Inspection - Make certain the work is completed and inventory tools and equipment used.
2) Clean-up - Remove all towels, rags, work-aids, etc.
3) Replace guards - Sometimes a particular guard may have to be left off until the start sequence is over due to possible adjustments, however, all other guards should be put back into place.
4) Check controls - All controls should be in their safest position.
5) The work area shall be checked to ensure that all employees have been safely positioned or removed and notified that the lockout/tagout devices are being removed.
6) Remove locks/tags - Remove only <u>your</u> lock or tag.

Procedure Involving More Than One Person

When servicing and/or maintenance are performed by more than one person, each authorized employee shall place his own lock or tag on the energy isolating source. This shall be done by utilizing a multiple lock scissors clamp if the equipment is capable of being locked out. If the equipment cannot be locked out, then each authorized employee must place his tag on the equipment.

Procedures for Shift or Personnel Change

Each facility must develop their own written procedures based on their need and capabilities. All persons should be briefed on the current situation or status prior to working in that environment and will ensure the continuity of lockout or tagout protection during that time.

Training & Communication

1) Each authorized employee who will be utilizing the lockout/tagout procedure will be trained in the recognition of applicable hazardous energy sources, type and

magnitude of energy available in the work place, and the methods and means necessary for energy isolation and control.

2) Each affected employee (all employees other than authorized employees utilizing the lockout/tagout procedure) shall be instructed in the purpose and use of the lockout/tagout procedure and the prohibition relating to attempts to restart or re-energize machines or equipment which are locked out or tagged out.

3) Training will be provided and any documentation or certification will be retained in the employee's personnel file.

PAINTING AND PAINT & SOLVENT STORAGE

General

Although painting operations appear to be relatively easy and safe, painters are exposed to many kinds of personal hazards such as falls from scaffolds and ladders, burns from fires caused by flammable materials and illness from the use of some compounds and toxic paint and thinners.

Paint Mixing

1) Paint mixing will be done outdoors whenever possible, or if done inside, it will be conducted in an adequately ventilated area.
2) All sources of ignitions shall be prohibited in all mixing areas and electrical facilities used near paint preparation spaces will be approved explosion-proof type.

Storage

1) Flammable and combustible paints and thinners shall be stored in approved storage rooms or cabinets designed for safe storage. Exception: small amounts of paints and thinners not exceeding one week's supply can be stored in a fire safe area for painting or maintenance purposes.
2) At no time will flammable or combustible paints or thinners be stored in open containers.
3) Approved Storage cabinets containing flammable or combustible liquids shall be properly marked.
4) A suitable fire extinguisher shall be available immediately adjacent to any storage area and the location of such extinguisher should be clearly marked.

Protective Clothing & Equipment

1) Painters preparing surfaces for painting shall wear eye protection to protect their eyes from chips and flying particles.
2) Proper clothing should be worn to completely cover the body to avoid dermatitis to skin. Hands will be washed before eating.
3) Respirators should be worn when spray painting or working with paint or toxic materials, when adequate ventilation cannot be provided, and the proper respirator shall be selected for the hazard present.

General Safety

1) Clean up spilled paint, solvents, grease, oil or other materials at once.
2) Watch where you are going and make sure you have a clear working space around you. This is critical when working on elevated structures.
3) Do not store paint or solvent soaked rags and drop clothes in wooden or non-fire resistant buildings and containers. Spontaneous combustion can occur. Do not soak paint brushes in open containers of solvent and place them in paint storage buildings or lockers, the vapors can cause fire or explosions.
4) Use tools to loosen stuck windows. Don't attempt to do it by hand, unless you are standing on a firm support and can use both hands.
5) Do not paint on or around electrical equipment or bare wires unless you are assured by a qualified electrician that such equipment or wires are not energized or is not hazardous. Do not use metal ladders around electrical equipment and wires. Ensure ladders are safe to use, and are not broken and splintered. All ladders must be utilized within their listed weight and height capacities. If ladders do not comply replace immediately.

USE AND HANDLING OF PESTICIDES

General

Most pesticides are used for the control of insects, rodents and other kinds of pests. They are irritating to the skin and toxic when inhaled, absorbed or swallowed. If all safety precautions are followed in applying pesticides, neither humans nor animals will be affected by the toxic material used to kill unwanted pests.

1) When mixing, applying or handling pesticides, avoid contaminating your clothes with the materials, breathing the vapors and touching substances to your mouth, eyes or skin.
2) Be completely familiar with the characteristics of the materials being used and read all pesticides container labels carefully making sure you comply with the directions given.
3) Keep hose and pipe connections of pesticide applicators tight to prevent leaks and spills.
4) Protect drinking water, food and eating utensils from pesticides used nearby.
5) Do not use pesticides near open flames or in the vicinity of equipment producing high temperatures.
6) All waste materials soaked with pesticides will be discarded in covered metal containers and all fire prevention practices will be observed at all times.
7) Do not handle pesticides carelessly or improperly; they are toxic to humans and animals and can be dangerous. Proper precautions will be taken to prevent accidental or deliberate access to pesticides by unauthorized persons.

Storage and Mixing

1) All pesticide containers will be labeled and stored in a safe and orderly manner in a controlled area.

2) Areas in which “on hand” supplies of toxic pesticides are stored and mixed will be completely enclosed and locked to prevent the materials from falling into the hands of unauthorized persons.
3) Storage spaces will be located where the toxic contents will not contaminate food supplies, water or create a fire hazard.
4) Containers labeled ‘POISON” shall be locked up.
5) Do not store pesticides near open flames or strong oxidizing materials. Never store or transport pesticides with food supplies.
6) Storage and mixing facilities will be equipped with running water, and soap to enable personnel to quickly remove any spilled pesticides that come in contact with the skin.

Protective Clothing & Equipment

Protective respirators and breathing apparatus and clothing recommended by the manufacturer and approved by the Department shall be used.

Emergency Procedures

1) If a person accidentally swallows a toxic pesticide call 911, administer the antidote recommended on the container label and get the victim to the hospital as quickly as possible. If the victim is unconscious, do not attempt to give an antidote.
2) If the victim has stopped breathing, provide CPR and notify 911.
3) When a person accidentally spills any pesticides on the skin, remove all contaminated clothing and flood the contaminated area with water. Follow flooding with a thorough soap-and-water wash. After first aid has been administered, see that the victim reports to the doctor for examination and any treatment needed.

OFFICE SAFETY

General

Office work is generally considered to be one of the safest of all City activities, but little thought is given to the hazards that are present in most of our offices. Slips and falls on waxed floors, collisions with desks, chairs and open file drawers, strains from unauthorized furniture moving and other similar accidents are common to offices. Special machines and equipment used in the office work area also add to potential accidents.

1) Do not run on stairs, walkways or in the hallways.
2) Bulky office supplies and materials must be lifted properly to avoid muscle strains. Use mechanical devices to lift or carry loads that cannot be easily handled by one or two persons.
3) Heavy office furniture, files and equipment will be moved only by properly trained and physically qualified personnel.
4) Chairs, boxes or other objects will not be used as substitutes for ladders.

5) Overloading the top file drawer in file cabinets may over balance the cabinet and cause it to fall forward when the drawer is pulled out. Put heavy materials in bottom drawers whenever possible.
6) Always close file cabinet drawers especially when working in the lower files and always close your desk drawers.

Office Equipment

1) Suitable office equipment will be provided for stamping, sharpening and cutting operations. Makeshift tools, such as unprotected razor blades and pins will not be used.
2) Electrical fans, pedestal, oscillating desk and any types will be equipped with preferred safety guards when installed less than seven feet above the floors. All fans are required to be electrically grounded (3-wire cord and 3-prong plug).
3) Electrical appliances used for coffee making and other purposes should be inspected on a regular basis to be sure that cords are in good condition and plugs are not broken or cracked. A fire-resistant base should be placed under all heat producing appliances so they do not present a fire hazard.
4) Splintered or jagged edges or other defects found on office furniture will be immediately repaired or the equipment replaced.
5) Electrical cords and wiring will not be strung across floors, but will be installed in conduits flush with the floor, covered by rubber or metal strips, or suspended from overhead.

Office Area

1) Rough, splintered, uneven or other floor defects will be repaired or the hazard suitably marked. Floors will be kept clean and free of dirt and debris. Non-skid wax will be used to prevent slipping.
2) Storm mats should be placed at outside entrances and exits.
3) All stairways should be equipped with handrails and non-slip treads and well lighted. Worn stair treads will be immediately repaired to prevent personnel from falling.
4) Rugs, mats and other types of floor coverings should be securely fastened to the floor.

MOTOR VEHICLE OPERATION

General

As a driver of any City vehicle you are solely responsible for operating it in a safe manner and are charged with complying with all local, state, county and federal driving rules and regulations and any safe driving practices prescribed by your supervisor.

Vehicle Inspection by Operators

All vehicles shall be inspected by the operator prior to use to assure all parts, equipment and accessories are in safe and proper operating condition and free of any apparent

damage or defect that, in the opinion of the operator or a duly appointed individual making the inspection, may cause failure while in use.

Safe Driving Practices

1) Concentrate on driving. A good driver dismisses worries or anger when entering vehicle.
2) Always wear your seat belt/shoulder harness.
3) Adjust speed for poor visibility and weather conditions.
4) Slow down at intersections and curves. Use appropriate signals well in advance of any action.
5) The use of narcotics and habit-forming drugs is strictly forbidden. If prescribed medication is to be used it must be authorized by a medical doctor; and if any medications might impair your ability in any way, you will not drive. Driving while intoxicated by drugs or alcoholic beverages shall be grounds for disciplinary action.

Backing

A large number of vehicle accidents occur when being backed out of parking areas, plan ahead to avoid backing if possible.

1) Truck drivers and drivers of other types of heavy equipment that makes backing difficult due to size and design will always check the rear and sides of their vehicles by walking around the vehicle and observing if proper clearance is sufficient to back safely.
2) If you are in the cab and cannot ensure that you have proper clearance, get out of the cab and physically check the rear and sides of the vehicle. If you have a passenger, have him/her direct you. Never back vehicle unless you have assured that you are clear to do so.
3) Remember, if someone directs you while backing it does not relieve you, as the driver, of the responsibility if you have an accident.

Drive Defensively

1) Keep alert at railroad crossings. Make sure you have a clear view of the tracks.
2) All trucks and busses will come to a full stop before crossing tracks.
3) When driving in City traffic be alert for mistakes or unexpected actions of others. Drive more slowly and keep alert for pedestrian and cross traffic.
4) Drive at speeds which permit stopping within visibility range of your headlights. Keep headlight beams depressed to reduce reflected glare caused by fog, rain or wet pavement.
5) Always make a daily check of your vehicle to ensure all equipment is working properly. Be sure your mirrors are clean and properly adjusted.
6) Always consider proper loading and proper load distribution as factors in safe driving.
7) If involved in an accident, be sure to notify authorities as required by law, complete the required accident report forms, and follow the City policy on

reporting accidents. Always notify your supervisor of any accident you are involved in, no matter how minor.

CONSTRUCTION & MAINTENANCE VEHICLES AND EQUIPMENT

General

Many different types and sizes of mechanized equipment are used by the City for construction and maintenance activities. Because of the nature of this equipment, operators and other workers are exposed to hazards while working on or near it. All personnel will be alert at all times to avoid accidental injury and property damage in the operation of this equipment.

1) Only properly trained and qualified personnel will be authorized to operate and maintain construction vehicles and equipment.
2) All mechanized equipment will be inspected prior to use and at frequent intervals to ensure that safe operating condition is maintained.
3) Mobile equipment operators shall conform to all laws and regulations governing motor vehicles when operating on state, City roads and highways.
4) When construction equipment proves hazardous to highway users, traffic will be controlled or warned by flagmen, signs, temporary barricades or other approved methods.

Operational Safety

1) Protection will be provided on all construction equipment to guard operators against falling objects, swinging loads and bad weather.
2) No one will attempt to get off or on to moving equipment and unauthorized personnel will not be permitted to ride on construction equipment at any time. Disciplinary action will be taken against both the operator and rider.
3) Equipment will not be oiled when it is in operation, nor will it be fueled while motor is running.
4) Accumulations of dirt, grease, oil or oily rags will not be permitted on any equipment.
5) Job conditions will determine safe operating speeds. Care will be taken in starting, turning and stopping, and in particular, backing.
6) Operators will be careful to avoid contacting high voltage electrical lines when working cranes, cherry pickers and like equipment.
7) Stationary equipment will be placed on firm foundations, located so weight and vibration will not cause the earth to cave in or create hazards to other facilities in the area.
8) Operators will wear eye protection when dust or other eye hazards are present.

9) When an engine must be cranked by hand, the equipment must first be taken out of gear.
10) When construction equipment is to be towed, safety chains will be used in addition to regular towing hooks. If equipment is to be towed after dark, lights will be placed at the rear of the tow. Personnel shall not ride on the tow bars between equipment under any circumstances.
11) When construction equipment is moved by trailer, care will be taken in loading and unloading to prevent machinery from tipping over; and articles on the truck boxes or beds shall be secure from movement.
12) Clearance heights all along the proposed route of travel will be checked and operators will keep a close watch to avoid striking low hanging objects with equipment.
13) When moving equipment on roads and highways, state and City requirements will be observed. Overhanging portions of loaded equipment will be marked by warning flags or lights.

Tractors & Attachments

1) Tractor operators will be constantly alert to avoid striking workmen, obstructions and other vehicles.
2) Operators will not allow passengers to ride their tractors.
3) During operations, tractor drivers will not wear loose clothing or jewelry that may become entangled in moving parts and ensure that shoes are free of mud, grease or oil that could cause slipping.
4) Steel bars should be used to guide the eyes of attachments over tractor hooks to avoid pinching hands.
5) A signalman, standing in a clear position, will guide the tractor driver backing into position or hookup.
6) Safety chains will be put between the tractor and attachments as added protection if the tow bar breaks.
7) Hydraulic systems will be inspected frequently to ensure safety and satisfactory operation.
8) When tractors are stopped and the engines are left idling, they will be placed in neutral with their clutches engaged so they cannot accidentally be jarred into motion.
9) Before motors are started, tractors will be taken out of gear, the master clutches disengaged and the blades lowered to the ground.
10) Before moving tractors, dozers, etc., operators will walk all the way around their machines to make sure that there are no obstacles and the way is clear.

MAINTENANCE VEHICLE, STORAGE BARNS AND REFUELING AREAS

General

The normal activities of motor vehicle maintenance barns present numerous hazards to maintenance personnel. It is essential that adequate safety standards be prescribed and observed by all shop personnel to promote efficiency and reduce the possibility of personal injury and property damage.

1) Keep repair shops adequately ventilated to protect against exposure to hazardous concentrations of carbon monoxide gas; move any equipment with engine running to the outside if ventilation is not adequate.
2) Always work under adequate illumination at work benches, lubricate pits and other shop work areas.
3) Maintain working area free of trash scraps and other tripping hazards on a daily basis.
4) Protective equipment should be worn at all times when necessary.
5) Personnel will avoid wearing extremely greasy, oily or dirty clothes.
6) Do not wear rings or other jewelry when working on motor vehicles, when servicing batteries, and when operating rotating machine shop equipment, or when working on or around electrical equipment.
7) To reduce fire and slipping hazards, do not allow floors to become saturated with oil or other flammable materials. Use absorbent material and clean up as quickly as possible.
8) Never smoke while fueling any equipment, and do not allow anyone to smoke in the immediate area.
9) Use a safety solvent (combustible rather than flammable) provided for cleaning parts. Never use carbon tetrachloride, gasoline, or any hazardous materials for this purpose. To use other than approved safety solvents will expose you and your co-workers to the danger of burns, or lasting health problems.
10) Be sure that fire extinguishers are available (locations clearly marked) and that there are no obstructions which will prevent your access to them.
11) Lockers and washrooms will be maintained in a clean condition and provided with proper soap and towels.

Safety in Maintenance Activities

1) Air compressor storage tanks will be drained on a regular basis, by opening the drain valve and allowing water and water vapor to escape.
2) All belts, pulleys, gears, chain, sprockets or any other moving parts on air compressors will be completely enclosed with a guard.
3) Only persons properly trained in the operation of shop machines will be authorized to use them.
4) Do not drain gasoline, oil or other liquids and materials in areas where they are likely to go into storm sewers and sewage systems. This is an extremely hazardous practice. It can cause fire, explosions and extensive problems in sewage plant operations. Drain into drums or buckets for proper disposal.
5) Compressed air shall not be used for blowing dirt from hands, face or clothing. Be sure the nozzle is designed for maximum 30 PSI when used for cleaning and make sure that eye protection is worn.
6) All compressed gas cylinders will be racked and secured in carts, or to walls and posts, to prevent being accidently knocked over. Valve protection caps shall be

installed on all cylinders not in use. This requirement also applies to cylinders transported in vehicles.

7) All shop hand tools will be inspected frequently for defects and defective tools found will be repaired or replaced as soon as possible.
8) Wear eye protection when working under a vehicle, especially if pounding is done by you or another employee on some part of the vehicle. This will prevent dust, dirt or rust from causing an eye injury.
9) When a vehicle is jacked up, or hung up on chain hoists, and when a mechanic is making repairs underneath, the use of pyramid jacks, trestles or substantial wood blocking is required.
10) No one will be permitted to work inside a vehicle that is blocked up when another person is working under the vehicle. Mechanics working under vehicles will ensure that their legs do not protrude in aisles exposing themselves or others to injury by creating a tripping hazard.

Tire Repair

1) Tire repair work is hazardous if proper precautions are not taken.
2) Avoid strains when handling heavy tires by getting help, by placing tires on dollies or using lifting equipment.
3) Do not use extension handles or pipe (cheaters) on wrenches when removing lug nuts. Use air operated wrench whenever available. Use penetrating oil on nuts that are “frozen”, then if wrench is used make sure it is of proper size. Tapping the wrench lightly will aid in freeing the nut.
4) Always use a safety cage when inflating tires equipped with lock rings. When inflating the tire, turn your face away from it. Never hold the tire between your legs at any time. Always stand to one side when applying air.

Hoisting and Lifting Equipment

Never overload hand operated or electrical hoists. The rated load will be legibly and permanently marked in a prominent location on all hoist and lifting equipment including jacks. (Jacks supplied with vehicles are excluded.) Rated load limits will not be exceeded.

Specialized Shop Work

1) Only trained and authorized personnel will operate specialized testing machines and equipment.
2) Eye protection shall be worn by maintenance personnel using permanently mounted or portable grinding and cutting tools that produce flying chips or dust.
3) When using air operated tools be sure it is of the size and type suited for the job.
4) When installing a cable, use a bar, not your hands to guide it.
5) Use substantial wooden blocking when working in or under a scraper while the bowl or apron is raised on the blade on a dozer.
6) Be sure that all guards have been replaced before operation of any equipment which has been repaired or adjusted.
7) Proper equipment shall be worn when boiling out radiators.

8) All electric machines, motors, portable electric tools and equipment will be properly grounded.
9) Before using a portable drill in thin sheet stock, be sure that no one is on the other side of the area being drilled. Use a wooden block whenever necessary.
10) Do not use an extension drill when a shorter drill will do.
11) Always use a key to tighten or loosen the chuck if you are using a key type chuck. When tightening a hand drill chuck with a key, keep hands away from the trigger switch to avoid accidental actuation of the drill motor.
12) Always wear appropriate protective equipment when performing any hazardous maintenance operation.
13) It is the responsibility of the each employee to check their personal tools to ensure that they are in good working condition. Defective tools will be repaired or replaced. Special care will be given portable electrical tools to be sure they incorporate proper grounding requirements and that cords and plugs are in safe condition.

FIRE PREVENTION & PROTECTION

General

Fire prevention, protection and control are sometimes thought of as separate from routine accident-prevention activities and concerned only with preventing property damage. Property damage and personal injury are so closely related that the possibility of injury or fatal results exists in most accidental fires involving property damage. Since this is the case, the prevention and protection against hazards of fire is a very important part of the City safety program.

1) Learn the location of fire extinguishers and fire equipment and know how to use it.
2) No fire extinguishers, fire hoses or other emergency equipment is to be removed or used for any purpose except for its intended use.
3) In the event of fire, the person discovering the fire will first call 911 and then use available fire extinguishers. Inform all persons in the vicinity of the fire and ask for assistance.

Fire Prevention Requirements & Controls

1) Do not block fire exits, escapes, extinguishers, fire hoses, fire alarm boxes, fire detection installations, sprinkler valves and sprinkler heads.
2) Do not hang clothing or place materials on fire extinguishers and other fire equipment.
3) Report all missing, damaged or inoperative fire extinguishers and those that have been used, immediately to your supervisor.
4) Always obey smoking regulations. Smoking is only allowed in designated areas.
5) All flammable materials shall be properly labeled and stored in a proper location.
6) Dispose of all flammable wastes as quickly as possible. Flammable scrap, rags or rubbish will be placed in the containers provided.

7) Paper and all other packing material must be kept in fireproof containers and emptied at least once a day.
8) Gasoline, kerosene, oil or other flammable liquids will never be poured into drains or sewers. They will be collected in containers identified for that purpose until proper disposal can be made.
9) Know the fire exit you should use in an emergency and the route you should take to reach it.
10) Change your clothes right away if they get soaked with oil, gasoline, kerosene, naphtha or other flammable liquids. This is a severe fire hazard in addition to being a health hazard in that this can cause skin rash or burns.

Classes of Fires and Types of Fire Extinguishers Used

Fires are grouped into four general classes as follows:

1) Class “A” – Wood, Paper and Textiles
2) Class “B” – Flammable & combustible liquids, grease, oil, etc.
3) Class “C” – Electrical equipment
4) Class “D” – Combustible metals such as magnesium, titanium, etc.
5) Class “K”—Cooking with greased laden vapors

This classification system makes it possible to determine what type of fire extinguisher is suited for fighting a particular kind or class of fire.

The ABC dry chemical type fire extinguisher can be used on all A: B: C classes of fires with safety. There are also a number of CO2 (carbon dioxide) fire extinguishers; however, this fire extinguisher is only effective on Class B and C fires (flammable liquids and electrical equipment) and will not effectively put out a Class A fire.

Storage

1) Drums and other containers of gasoline, oil, solvents, thinners, oil base paint and varnish will not be stored in locations where they could be ignited by sparks, flames or other sources of ignition and shall not exceed amounts allowable in any one fire safe area.
2) Building machine rooms containing air conditioning, heating, electrical and elevator machinery and equipment shall not be used as storage area.
3) Space in enclosed fire escapes and under stairways will not be used to store materials. Fire exits and open fire escapes will not be blocked by stored materials.
4) A solvent is a liquid that dissolves another substance. Most solvents are flammable. They must be used with caution and stored in closed fire-resistant containers and should be in approved storage rooms or cabinets
5) Metal containers with lids will be used for storage of waste materials. Combustible trash and materials will not be intermingled with rags and cloth saturated with flammable liquids.
6) Storage of unmarked or improperly marked containers is strictly prohibited.
7) Boxes, discarded lumber and other combustible rubbish will be removed from buildings and areas adjacent to buildings.

Sources of Ignition

1) The use of blowtorches, soldering irons, welding torches or other equipment in which open flames are used will be carefully restricted to isolated places where there is a good circulation of air and where no vapors of gasoline or other flammable or combustible liquids can collect.
2) Shops, warehouses and offices that produce combustible refuse such as paper, wood and metal shavings will be kept clean so that accumulation of waste materials will not create a hazard.
3) Gasoline, propane and kerosene heaters and stoves will not be used in any buildings, unless all safety requirements are met. (Detection and Ventilation)
4) Sufficient natural or mechanical ventilation will be provided in all areas where flammable or explosive materials, fuels, vapors or gasses present fire hazards.
5) Hot plates, coffee pots, oven and cooking or portable heating devices will be approved (Underwriters Laboratory) types. These devices will be inspected to ensure the cords and plugs are not defective.
6) Open solvent or gasoline containers will not be placed near electrical equipment or sources of ignition.
7) Empty flammable liquid containers will be cleaned and purged before being stored. Store these containers away from buildings.
8) Tampering with electrical wiring is prohibited. Defective wires, switches, drop cords, extension cords, etc. will be reported immediately to your Supervisor who will arrange for qualified personnel to repair it.
9) All equipment used near flammable or explosive materials and substances will be approved explosion-proof type, installed in compliance with the National Electrical Code.
10) Only proper size fuses/breakers will be used on electrical circuits and fuses/breakers will never be by-passed by “jumper wires” or other devices.
11) Rest rooms will be kept free of combustible materials and will not be used for storage.

Flammable & Combustible Liquids

1) Handling and using flammable and combustible liquids will be carefully controlled to prevent fire and explosions.
2) To prevent evaporation of flammable liquids, with resultant vapors, keep them in closed containers. When such liquids are handled or stored, they are usually exposed to air at some point of operation, such as filling containers and mixing or transferring liquids from one container to another.
3) Remove all sources of ignition and provide adequate ventilation.
4) Safety cans will be used for handling and transporting small quantities of flammable and combustible liquids.
5) Ventilator fan blades used will be made of non-sparking material and all ventilating equipment will be approved explosion-proof type. Detecting systems will be bonded and grounded to prevent generation of static electricity.

6) When required, storage tanks and other flammable liquid containers will be equipped with vents for discharging excess pressures that may build up. Vent pipes on storage tanks will be at least twelve (12) feet above the ground and located only where discharged vapors will be safely dissipated.

Flammable Gases

Flammable gases are similar to flammable liquids in many respects. Under pressure or decreased temperature, flammable gases become liquids. Flammable liquids become gases if their temperatures are raised and their pressure decreased. In general, flammable gases have physical characteristics similar to the vapors of flammable gases; they are in a form, at all normal temperatures.

1) Beware of any unusual odors around gas cylinders, in most cases there is a leaking container. Report immediately and be sure all sources of ignition are kept away.
2) Warning signs will be posted in areas where flammable gas cylinders are stored. No spark or flame-producing equipment will be used in areas where flammable gases are stored. Flammable gas cylinders shall be properly secured to prevent tipping or falling.
3) Gas cylinders will not be used for any purpose other than for containing compressed gas.
4) Gas cylinders will be moved by hand trucks when possible. Cylinder valves will be closed and valve protection caps in place.
5) Acetylene cylinders will never be stored in a horizontal position.
6) Cylinders will not be stored where cylinder temperatures are subject to rise above 125 degrees F.