



Sample Company Safe Work Practices

First Edition

LC&I, SIF2009

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EMPLOYEE ACKNOWLEDGEMENT OF RECEIPT OF EMPLOYEE HANDBOOK

This will acknowledge that I have received my copy of the Safe Work Practices Handbook.

I will familiarize myself with all rules and regulations in this Handbook, including the organization's Drug and Alcohol Policy, and any additional rules and regulations affecting my job.

I understand that this Handbook represents only the organization's current policies, regulations, and benefits, and that it does not create a contract of employment. The organization retains the right to change wages and all other working conditions as it deems necessary or appropriate.

I understand that I am employed for no particular period, that I have the right to terminate my employment at any time, with or without cause, and that the organization has a similar right. I further understand that my status as an "at will" employee cannot be changed except in writing, signed by the president of the organization.

Print Full Name _____

Sign _____

Date _____

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Policy Statement

By Name, Owner/President

Working as a contractor can be a dangerous job. Fact is, construction ranks near the top of the list of high-risk occupations.

While the risks are high, injuries and deaths have been declining steadily for many years. The principal reason for this favorable trend is the growing knowledge of what causes accidents. Once the causes of accidents are known, work practices can be changed to eliminate them.

Safe Work Practices is a collection of practices which can significantly reduce or eliminate accidents. Many of these practices are based on studies by safety experts of near-misses and accidents at other companies. Careful investigations revealed practices which were unsafe and should be abandoned. By following the practices in this manual, you will benefit from this valuable body of industry experience.

No phase of operations is of greater importance than safety. We commit to our people and our customers that safety in attitude and practice shall be on the job every day. Equipment, training and leadership shall be provided to accomplish this commitment.

No safety manual covers all situations. In addition to these practices, always follow job specific work practices and all other safety requirements. Above all, be alert and use good judgment.

Name

Owner/President

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General Safety Principles

101 Introduction

- .01 Safety of life shall outweigh all other considerations.
- .02 It is the intent of the Company to provide a safe and healthy work environment for all employees and assure that employees have the knowledge, skills, and equipment to perform their jobs safely.
- .03 These rules shall be strictly adhered to. Negligence, carelessness or unsafe work practices shall not be tolerated. It is not practical to describe in detail all safe work practices necessary for the safe operation of the Company.
- .04 No work is ever to be considered so important or urgent that the necessary steps cannot be taken to do it safely.
- .05 Each employee shall assume responsibility for his or her own safety. This responsibility increases with experience. Each employee shall be required to know and use the protection required for his or her job and shall be familiar with the tools and equipment required.
- .06 All employees are responsible for seeing that all applicable safe work practices are followed in the performance of the job. Each employee has the additional responsibility of assisting in the safeguarding of others.

- .07 An employee shall not use intoxicants or drugs while on duty, report for duty while under the influence of intoxicants or drugs, or be relieved by another employee known to be under the influence of intoxicants or drugs. If an employee's physician has prescribed drugs or medication that will limit the employee's ability to perform certain jobs, the employee shall inform the supervisor of that fact.
- .08 Each employee shall challenge any carelessness or unsafe work practices and, if the employee believes it is necessary in the interest of safety, shall advise the person in charge.
- .09 The use of the word "shall" indicates a *mandatory* practice. The word "should" indicates an *advisory* practice.
- .10 Where advisory or discretionary judgments are undertaken, adequate measures shall be taken to ensure an equivalent level of accident prevention.
- .11 Interpretations and assistance with Safe Work Practices is available from supervisors and from departmental safety staff. Please refer to applicable work procedures or programs for specific details and additional information.
- .12 Some of the company's customers may require their rules to be followed. In the event that a company customer does require their rules to be followed, the safer of the two rules will be enforced.

102 Barricades, Barriers, and Warning Signs

- .01 Employees shall heed warning signs. Where hazardous conditions exist, barricades, barriers and/or warning signs shall be used to warn employees and the public of the dangers.
- .02 Where hazardous conditions exist in a poorly illuminated area or after dark, adequate lighting shall be provided and

flashing warning lights shall be placed on all sides of the hazardous area.

- .03 Approved railings shall be used to guard stairways and open-sided floors. Toe boards or other suitable means shall be installed where falling tools or materials create hazards to others.
- .04 Each barricade should have an information tag listing the date the barricade is erected and the person responsible for placement of the barricade, and the purpose of the barricade.

103 Batteries

- .01 For additional information, refer to manufacturers' product information and Material Safety Data Sheet (MSDS).
- .02 Adequate ventilation shall be provided in battery and battery-charging areas. Where natural ventilation does not constantly change the air, forced ventilation shall be used. The manufacturers' recommendations shall be followed in charging batteries.
- .03 Approved signs shall be posted and observed in all battery areas. Signs shall read Danger – No Smoking, Open Flames or Ignition Sources.
- .04 Approved eye wash facilities shall be available and located within 25 feet of the battery-charging area.
- .05 Employees shall wear acid-proof gloves, aprons, chemical monogoggles and face shield when handling or repairing batteries.
- .06 Care shall be exercised to prevent short-circuiting, generating a spark or ignition source when working on or near the battery or when cleaning or making repairs.
- .07 When making up electrolyte for batteries, employees shall always pour the acid slowly into the water, not water into the acid. The wrong procedure can cause an explosion.

- .08 A carboy filter or siphon shall be used to handle electrolyte.
- .09 If electrolyte is spilled on clothing, the contaminated clothing shall be removed and the skin washed with water as soon as possible.
- .10 Open flames, tools that can cause sparks, and other sources of ignition shall be kept clear of the immediate area during charging operations.
- .11 When it is necessary to work in battery rooms where sources of ignition exist, the room shall be adequately ventilated. The battery charger shall be turned OFF when practical.
- .12 Battery-powered vehicles shall be properly positioned and brakes set before charging operations commence.
- .13 When charging batteries, vent caps shall be kept in place. Care shall be exercised to ensure that vent caps are functioning properly. Battery compartment covers shall be opened to dissipate heat and vapors.
- .14 Care shall be exercised to prevent grounding the case of a NiCad cell, since the case is part of an electrical circuit.
- .15 When removing a battery, the ground connection shall be the *first* connection removed. When installing a battery, the ground connection should be the *last* connection made.
- .16 When using a hydrometer to check batteries, care shall be taken to prevent splashing battery acid.
- .17 If jumpers are used to start vehicles with dead batteries, the jumper shall be connected first to the positive terminal of the dead battery, then to the positive terminal of the live battery. The other jumper shall be connected first to the negative terminal of the live battery and then to a suitable ground and *not* the negative terminal of the dead battery.
- .18 Rooms and cages housing exposed electrical bus above 60 volts shall be locked and access limited to authorized personnel.

- .19 Batteries shall be properly disposed of in an environmentally safe manner outside of shop area. Spent dry cell batteries shall be placed in an area of good general ventilation away from ignition sources and outside shops and employee workstations.

104 Bloodborne Pathogens

- .01 First aid providers and others who may reasonably anticipate having exposure to blood or other potentially infectious materials shall follow the procedures outlined in the Exposure Control Plan.
- .02 Avoid direct contact with blood and bodily fluids. Whenever possible utilize a waterproof barrier (latex or plastic) between you and the wound or bodily fluids.
- .03 All contaminated materials shall be properly disposed of.
- .04 Practice universal precautions.
- .05 In case of an exposure incident, notify your supervisor and/or safety coordinator within 24 hours.

105 Chain Saws

- .01 Approved personal protective equipment shall be worn when operating chain saws: hard hat, gloves, safety glasses.
- .02 The starter cord shall not be wrapped around the hand when starting the engine. Watch clearances and make sure of footing before pulling the cord.
- .03 Make sure everyone is in the clear and the operator has good footing before using the saw.
- .04 During refueling, smoking or open flames shall not be permitted in the area. The engine shall be stopped. A hot engine shall be allowed to cool before refueling.

- .05 While standing in an aerial basket, the saw shall be placed on the edge of the basket to start.
- .06 Saws shall be stored in carrying cases or the guard over the blade when not in use. A saw holder shall be used when carrying saws in aerial baskets.

106 Clothing, Jewelry, and Accessories

- .01 Loose dangling jewelry or flapping clothing such as neck ties and unbuttoned cuffs, shall not be worn when working around moving machinery or rotating parts. Shirt tails shall be kept tucked in.
- .02 When work is performed within reaching distance of exposed energized parts or equipment, the employee shall remove or render nonconductive all exposed conductive articles, such as key or watch chains, rings, or wrist watches or bands, unless such articles do not increase the hazards associated with contact with the energized parts.
- .03 Special care shall be used to make sure that rings and other jewelry items do not catch on fixed objects when employees move from one elevation to another.
- .04 Employees shall be required to wear a hair net if the supervisor deems hair length to be a hazard around moving machinery.
- .05 Employees engaged in climbing poles or structures, or in work areas where there is danger of injury to the arms such as cuts, abrasions, or thermal burns shall wear a long sleeve shirt buttoned or pulled down to the wrist.
- .06 Where there is exposure to electric shock or arc flash hazards, affected employees shall wear approved fire retardant (FR) apparel.
- .07 Personal headsets and earphones shall not be used while operating a company vehicle, nor shall they be worn while on the job.

- .08 All personnel shall be dressed in work apparel. No shorts, tank tops, or unprotected footwear are allowed.

107 Compressed Gas Cylinders

- .01 Cylinders shall be stored in designated areas and shall be secured in an upright position. Empty and full cylinders shall be stored separately. Oxygen cylinders shall be stored at least 20 feet from fuel gas cylinders or other combustible material, such as oil and grease, or be separated by an approved fire wall.
- .02 Cylinders shall not be dropped, struck, rolled in the horizontal position or exposed to temperature extremes.
- .03 When opening the cylinder valve the operator shall be in a crouched position behind and below the cylinder valve. The cylinder valve discharge shall be turned away from the operator and opened slowly. This does not apply when the cylinder is required to be in an inverted position.
- .04 Caps provided for valve protection shall be in place on the cylinder hand-tight, except when regulators are attached. Tools shall not be inserted in the cap for the purpose of loosening or tightening the cap. Utmost caution shall be used when removing caps to assure that the valve assembly is not unscrewed along with the cap.
- .05 Valves shall be kept fully open (if empty) or fully closed when not in use. If a special wrench is required, it shall be left in place on the valve stem for immediate use in case of emergency.
- .06 Oil and grease shall not be permitted to come in contact with torches, valves, regulators, gauges or fittings of oxygen cylinders.
- .07 Compressed gas shall not be released from any cylinder without using a suitable regulator except to initially clean the valve orifice. The control valve shall be opened only enough

- to blow out any foreign particles before connecting the regulator or line to the cylinder.
- .08 Acetylene and hydrogen cylinders shall not be vented.
 - .09 Sparks or flames shall be kept away from cylinders or hoses. A sign Danger – No Smoking, Open Flames or Ignition Sources shall be posted in rooms or at entrances to areas where fuel gas is stored or used.
 - .10 Oxygen shall be used for purposes intended and not for such purposes as to blow out pipelines, dust clothing, start engines, operate pneumatic tools, operate paint-spraying devices, or to pressurize tanks.
 - .11 Cylinders in use shall be secured to a special cart or secured to a stationary object such as a hand rail or column.
 - .12 Cylinders shall be properly secured in the upright position while being transported. Cylinders being transported shall have valve caps in place unless secured in a special cart or truck.
 - .13 Transportation of all compressed gas cylinders shall comply with DOT regulations for hazardous materials shipping papers. Tanks shall not be taken into confined spaces for cutting, welding, etc.
 - .14 Cylinders shall be legibly marked as to contents. Vehicles shall be properly marked (placarded) when transporting cylinders.
 - .15 Acetylene shall not be used at a pressure in excess of 15 psi.
 - .16 Regulators shall be removed and valve caps put in place while cylinders are being transported on elevators.

108 Computer Practices

- .01 Position display screen slightly below eye level and avoid glare on the screen.

- .02 Adjust work surfaces and space to comfortably perform work tasks.
- .03 Adjust keyboard position to ensure proper position, angle, and comfort.
- .04 Take rest pauses to alleviate or delay onset of fatigue as necessary.
- .05 Sit upright to avoid straining neck and back.
- .06 Use a footrest if feet don't rest comfortably on the floor.
- .07 Shift sitting position frequently to relax tension away.
- .08 Blink frequently. Make a conscious effort of it so your eyes won't get dry.

109 Confined Spaces

- .01 Employees shall follow the procedures outlined in the Permit-Required Confined Spaces Program as well as the specific entry procedures for the location involved.

110 Cranes and Hoists

- .01 Cranes and hoists shall be operated only by qualified personnel.
- .02 When working around a crane, employees in the immediate area shall wear a hard hat.
- .03 The controls of all cranes shall be distinctly marked so that their functions cannot be misunderstood.
- .04 The operator shall take all signals from the designated signalman. Should it be apparent that obeying a signal would result in an injury, the operator shall not proceed but shall notify the signalman at once. A STOP signal shall be obeyed regardless of who gives the signal.

- .05 All lifting equipment, slings and attachments shall be properly marked to show load capacity.
- .06 The rated capacity of the equipment shall not be exceeded.
- .07 Clearances shall be checked before raising or lowering a load.
- .08 After the slack is taken up, employees shall stand clear of the load before the actual lift is started, except as required by the job. When moving large, heavy equipment or materials by crane, a tag line shall be used.
- .09 Operators shall not move loads over the heads of employees. Employees shall not work under suspended loads or inside the angle of a winch line.
- .10 Suspended work platforms shall not be used unless no other means to access work is available.
- .11 The operator shall not leave controls unattended when the load is suspended.
- .12 Upon leaving the crane or hoist, the operator shall be certain to open all necessary switches or controls or apply brakes to prevent movement of the crane or hoist while unattended.
- .13 Approach distances with overhead lines shall be constantly checked. An observer shall be used when cranes or hoists are within ten feet of exposed energized overhead lines.
- .14 When working within ten feet of exposed energized lines or equipment, cranes shall be properly grounded, or lines or equipment shall be insulated or isolated.
- .15 Employees shall exercise extreme caution when working in the vicinity of a mobile crane that is operating near exposed energized equipment.
- .16 If the mobile crane accidentally makes contact with energized equipment, employees shall not approach the crane until the contact is broken or the equipment is known to be de-energized. If it becomes necessary for the operator to leave the crane, the operator shall jump clear rather than step down.

- .17 Outriggers shall be used to level a mobile crane. Once the initial strain is taken, and before proceeding with the job, the blocking and outriggers shall be re-checked to assure stability.
- .18 Should an overhead crane or hoist lose power, the controls shall be turned to the OFF position, until power is restored.
- .19 An approved fire extinguisher shall be easily accessible to the crane operator.
- .20 After the load is removed, the hook and/or slings shall be secured.
- .21 Hoisting cable shall be visually inspected each day before it is used.
- .22 A load shall be attached to the hook by means of slings or other approved devices.
- .23 "Shock" loads shall be avoided.

111 Ergonomics

- .01 Arrange workstations and/or work areas to accommodate a full range of required movements.
- .02 Ensure that all machine controls are reachable and easily accessible prior to operation.
- .03 Ensure that lighting is adequate to perform task activities.
- .04 Ensure that adequate space is available to allow safe lifting of loads using both hands, while facing the load.
- .05 Arrange work spaces and areas to avoid the need for carrying objects overhead and for overreaching.
- .06 Tools should be selected for ergonomic features.
- .07 Vibration dampening products should be used on vibratory type tools and equipment where applicable.
- .08 Plan work activities to reduce or eliminate repeated manual lifting where possible.

112 Eye Protection

- .01 Only approved eye protection (meeting ANSI Z-87.1) that is in good condition shall be worn.
- .02 Eye protective equipment shall be worn on jobs or in areas where hard hats are required, in all designated eye protection areas, on all jobs where it has been specified that eye protection is required, and at any time a hazardous condition exists.
- .03 Basic eye protection shall consist of safety glasses with side shields. Additional or specialized eye protection shall be worn as required by the job.
- .04 Contact lenses shall not be worn with full-face respirators.
- .05 Contact lenses shall not be worn when handling acids and caustics.

113 Fall Protection

- .01 Only approved personal fall-arrest equipment shall be used.
- .02 Employees shall be instructed in the use of fall-arrest equipment and/or positioning devices prior to using them on the job.
- .03 Body belts, safety straps, lanyards, lifelines, and body harnesses shall be inspected before use each day to determine that the equipment is in safe working condition. Defective equipment may not be used.
- .04 Lifelines shall be protected against being cut or abraded.
- .05 Personal fall-arrest systems shall be rigged such that an employee can neither free-fall more than six feet nor contact any lower level.
- .06 If vertical lifelines or droplines are used, not more than one employee may be attached to any one lifeline.

- .07 Snaphooks may not be connected to loops made in webbing-type lanyards.
- .08 Snaphooks may not be connected to each other.
- .09 Fall protection is required on all work above six feet unless on an approved work platform, a guardrail system or a safety net system is in place.
- .10 Anchorage points for positioning devices and fall-arrest equipment shall be located above the body belt or harness attachment point.
- .11 Fall-arrest equipment subjected to stress impacts caused by a free-fall or by testing shall be removed from service.

Note: Fall protection requirements for work on ladders, scaffolds or other approved work surfaces are included in other sections of the Safe Work Practices manual. Refer to Section 129, Ladders and Section 146, Scaffolding.

114 Fire Prevention

- .01 All No Smoking signs shall be strictly observed. No open flames shall be allowed or spark-producing tools used in the area where flammable or combustible liquids and gases are stored.
- .02 Each employee is responsible for recognizing fire hazards, eliminating the fire hazards when possible, and reporting those over which the employee has no control to the person in charge.
- .03 Each employee is responsible for knowing what action to take in case of fire, including whom to notify, where and how to sound available alarms and what fire fighting equipment to use.
- .04 Exit routes shall be kept clear of all obstructions.

- .05 Oily wastepaper, oily rags and other combustible materials shall be placed in metal containers with self-closing lids or self-extinguishing lids.
- .06 Open flames or spark-producing tools shall not be used in any area where combustible gas vapors or dust may exist unless proper precautions are taken in accordance with departmental procedures.
- .07 Fire extinguishers that have been discharged, even partially, shall not be placed back in service, but shall be promptly tagged and removed from service. The discharged extinguisher shall be replaced with a fully charged unit.
- .08 Designated fire hoses and other fire protective equipment shall not be removed from fire stations or used for purposes other than fire fighting or drills.
- .09 Access to fire extinguisher, designated fire hoses and other fire protective equipment shall not be obstructed.
- .10 All extinguishers shall be kept at their designated location on a hanger or in a cabinet when not in use.

115 Flammable and Combustible Liquids and Gases

- .01 All No Smoking signs shall be strictly observed. No open flames shall be allowed or spark-producing tools used in the area where flammable or combustible liquids and gases are stored.
- .02 Flammable and combustible liquids and gases shall be kept and transported only in approved containers. Containers being transported shall be properly secured.
- .03 Safety cans containing flammable liquids shall be marked with a yellow stripe around the can, and the contents clearly identified.

- .04 Flammable hazard or combustible waste liquid shall be disposed of only into approved waste containers. Waste shall never be emptied into any drain.
- .05 Combustible waste material, such as oil or paint-soaked rags, shall be stored in covered metal containers and disposed of daily.
- .06 When pouring flammable liquid from one metal container to another, or in filling gasoline tanks, metal-to-metal contact shall be maintained between the two containers or between the hose nozzle and the tank to prevent static buildup.
- .07 Dispensing drums shall be equipped with self-closing spigots. Pipe connections on all drums and piped flammable liquids shall be vapor and liquid-tight.
- .08 Leaking hoses and nozzles shall be repaired promptly.
- .09 Bulk containers used to dispense flammable liquids into another container shall be bonded to the receiving vessel and to ground to prevent static spark.
- .10 All spills of gasoline, oil or other flammable liquids shall be cleaned up immediately in accordance with environmental procedures.
- .11 The cutoff switch for electric pumps used to dispense flammable liquids shall be clearly identified and easily accessible.
- .12 Place containers on the ground when filling with flammable liquid instead of in the back of a truck with a bed liner to prevent static buildup.

116 Foot Protection

- .01 Safety shoes or boots (meeting ANSI Z-41.1) with steel toe caps and non-slip soles are required as basic foot protection for all employees who are exposed to foot hazards, such as falling, dropped, rolled or pivoted heavy loads or objects.

- .02 Additional foot protection shall be worn any time the job being performed creates additional hazards of foot injury, such as using a jack hammer or pavement breaker.
- .03 Only sturdy footwear that is in good repair and appropriate to the job shall be worn.
- .04 Where special hazards exist, high-top shoes or boots or puncture resistant soles may be required.
- .05 When welding and cutting, high-top shoes or boots that are close-fitting shall be worn.
- .06 Leggings are required when welding with low-quarter footwear. High-top shoes may be worn in lieu of leggings as long as the tops of the shoes are close-fitting and covered by the pants leg when welding.

117 Forklift Operations

Note: Additional Safe Work Practices should be consulted for order pickers, reach trucks, narrow aisle forklifts, motorized pallet jacks, and material chasers.

- .01 Only qualified and authorized personnel shall operate a forklift, and in accordance with manufacturers' safe operating instructions.
- .02 Hard hats and safety glasses shall be worn at all times when operating a forklift in a designated hard hat area or when exposed to overhead hazards. Hard hats will also be worn when using a forklift to lift a load when the top of the load being lifted is higher than cab protection of the forklift.
- .03 The operator shall complete an equipment checklist examination at the beginning of each shift prior to using the unit. A written copy of the completed checklist should be retained on file according to department procedures.
- .04 When descending an incline, the load shall be to the rear. When ascending an incline, the load shall be to the front.

- .05 Wheels shall be blocked if the forklift is parked on an incline.
- .06 Sudden stops that might spill the load shall be avoided.
- .07 The horn shall be sounded when blind corners are approached.
- .08 Forklifts with gasoline or diesel engines shall not be operated in an enclosed area for prolonged periods of time, so as not to exceed the allowed levels of carbon monoxide.
- .09 When a forklift is moved, loaded or empty, forks shall be carried as low as possible but high enough to clear uneven surfaces.
- .10 Loads shall not be raised or lowered while the truck is traveling.
- .11 The warning light on the forklift shall be turned ON whenever the unit is in operation.
- .12 Passengers are not allowed to ride a forklift unless an approved passenger seat is provided. No one shall be permitted to ride the load at any time.
- .13 Only an approved platform shall be used as a manlift. The platform will be properly secured to the mast or forks, and guards will be in place to prevent hands or materials from passing into the mast area.
- .14 Approved fall protection shall be used by all personnel while working in an elevated platform.
- .15 Fall protection should be properly secured to the fork-tine carriage and not to the platform or work basket.
- .16 The forklift operator shall never leave the lift while an occupied work platform/basket is elevated.
- .17 When forklifts are used in loading and unloading operations inside vans or trucks, special precautions shall be exercised. The vehicle shall be properly docked, and parked with the wheels safely chocked.

- .18 Upon control difficulty, malfunction, or equipment failure, the unit shall be tagged out-of-service until repairs are made and the unit re-certified.
- .19 When the forklift is not in use, the forks shall be lowered, brakes set, the key turned to the OFF position.
- .20 Personnel shall not stand or pass beneath the elevated forks, whether loaded or empty.
- .21 Forklift trucks should not be used in place of jacks or other lifting devices.
- .22 Only loads which are securely and safely loaded and within the rated capacity of the truck shall be handled.
- .23 When refueling forklifts, the engine shall be turned OFF.
- .24 Only approved attachments to the mast or forks shall be used. Improvised methods shall not be used.
- .25 All fork tine attachments, slings and lifting accessories shall be properly marked indicating load capacity.
- .26 The rated capacity of all equipment shall not be exceeded. Equipment not rated with load capacity shall be taken out-of-service until properly inspected and rated.

118 Gas Service

Note: This section applies to propane or natural gas systems.

- .01 When entering or working on customer property, employees shall check for hazardous conditions, such as, tripping hazards, dogs or other potentially dangerous animals.
- .02 Smoking and open flames are prohibited when working on gas service installations.
- .03 Prior to beginning work, visually inspect the gas service installation for hazards.

- .04 Appropriate personal protective equipment (hard hat, safety eyewear, protective footwear, gloves, etc.) shall be worn as required by the work conditions and task to be performed.
- .05 Gas service reconnects and disconnects shall be performed according to established procedures.
- .06 Electrical bonding jumper straps shall be applied during all gas service disconnects.

119 Golf Carts

- .01 Comply with all traffic signs and directions.
- .02 Drive the vehicle only as fast as terrain and safety considerations allow. Consider the terrain and existing traffic conditions.
- .03 Avoid sudden stops or change of direction as they may result in a loss of control.
- .04 All travel should be directly up or down hills. Use extra care when driving the vehicle across an incline.
- .05 Feet, legs, hands, and arms should be kept inside the vehicle at all times.
- .06 Check the area behind the vehicle before backing up.
- .07 Do not exceed vehicle capacity. Standard vehicle is limited to two occupants maximum per seat.
- .08 Balance and secure loads before driving. Keep items within the perimeter of the cart. Stay within the weight limits of the cart.
- .09 Drive golf carts on Company property only. Do not drive carts on public roads.

Golf Cart Battery Charging

- .10 Wear eye protection whenever working with the battery. Use extra care when working around the battery and charging equipment.
- .11 Charging must be performed in a well ventilated area.
- .12 Inspect the charger AC and DC plugs for loose, bent, arced or dirty contacts. Inspect the vehicle receptacle for loose wires or damage. Tag out-of-service any damaged cords or parts.
- .13 Insert plug fully into receptacle and check that the connection is tight.
- .14 Be careful not to pull on the cord or place it in a position where it can be driven over or present a hazard to personnel working in the area.
- .15 When connecting or disconnecting the charger to a vehicle, always make sure that the charger has completed its charge and is OFF (ammeter indicates 0 amps). If the charger is not OFF, an electrical arc may occur when the charger is unplugged and may cause an explosion or fire.

120 Hand Protection

- .01 Employees shall wear approved work gloves when handling sharp, rough, cold or heated materials or when the use of gloves will prevent hand injuries.
- .02 Only work gloves in good condition, free from holes and fraying, shall be worn.
- .03 Special gloves approved for use in handling acids, caustics or other potentially injurious substances shall be worn when working with these materials.
- .04 Gloves shall not be worn where there is danger of their being caught in moving machinery or rotating parts, except when using wire brush wheels.

- .05 “Grab-it” gloves shall be worn when installing and removing socket-type meters and when handling broken glass or porcelain.
- .06 Glove protectors shall not be worn in place of work gloves.
- .07 Approved thermal gloves shall be used for cold protection in LPG Fueling operations.
- .08 Rubber insulated gloves shall be worn when working on or near exposed energized lines or equipment.

121 Hand Tools

- .01 All tools, regardless of ownership, shall be of an approved type and maintained in good condition. Tools are subject to inspection at any time. The supervisor has the authority to condemn unsafe tools.
- .02 Defective tools shall be tagged to prevent their use and shall be either repaired or disposed of.
- .03 Tools should be used only for the purpose for which they were designed.
- .04 Hammers with metal handles, screwdrivers with metal continuing through the handle and metallic measuring tapes shall not be used on or near energized conductors or equipment.
- .05 Tools shall not be thrown from place to place or from person to person. Tools that must be raised or lowered from one elevation to another shall be placed in tool buckets or firmly attached to hand lines.
- .06 Tools shall not be left unsecured on scaffolds, platforms, or other elevated places where their falling could endanger employees below.
- .07 Impact tools such as chisels, punches, drift pins and hammers, that become worn, mushroomed, or cracked, shall be dressed before further use or replaced.

- .08 Sharp-edged tools shall be kept sharpened.
- .09 Hand tools shall be used in such a way as to prevent injury in case of a slip.
- .10 Chisels, drills, punches, ground rods and pipe shall be held with suitable holders or tongs, not with the hands, while being struck by another employee.
- .11 Wrenches with sprung or damaged jaws shall not be used. Adjustable wrenches shall be pulled so force is applied to the side of the fixed jaw.
- .12 Only approved extensions shall be used for added leverage.
- .13 Only wrenches designed for the purpose shall be struck.
- .14 Tools with sharp edges shall be stored and handled so they will not cause injury. They shall not be carried in pockets. All cutting tools shall be kept properly guarded.
- .15 Tool handles that are loose, cracked or splintered shall be replaced. Handles shall be kept clean of oil and grease.
- .16 When working on or above open grating, the grating shall be covered to prevent tools or parts from dropping to a lower level, or the danger area below shall be barricaded or guarded.
- .17 The insulation on non-rated hand tools shall not be depended upon to protect users from electric shock.
- .18 Files and rasps shall be used with handles. They shall not be used as a pry, nor shall they be struck.

122 Hazardous Materials

- .01 Read and understand the Hazard Communication Program to include Material Safety Data Sheets (MSDS) and product warning labels for the products and substances with which you are working.

- .02 Hazardous materials, chemicals and products shall receive approval for use by evaluation through the Chem Safe Program.
- .03 Only qualified and authorized employees shall handle hazardous materials.
- .04 Appropriate personal protective equipment as defined in the MSDS shall be worn to reduce exposure to injury and other risks.
- .05 Practice good personal hygiene to reduce exposure to hazardous substances.
- .06 Consult with a supervisor or safety staff member if you have any questions about working safely with hazardous substances.

Hazardous Material Spills

- .07 Any identified or unfamiliar hazardous material spill or leak should immediately be reported to the supervisor or Corporate Environmental Services and handled according to approved procedures.
- .08 Effort shall be made to restrict access to the area to contain the hazard only to those that are required and who meet all safety and occupational health requirements.

123 Head Protection

- .01 Only approved hard hats or caps (meeting ANSI Z - 89.1) with standard reflective decals shall be worn.
- .02 Head protection shall be worn by employees and non-employees under the following conditions:
 - In designated hard hat areas
 - On a power plant site
 - At all construction sites
 - By all operating personnel in the field

- By those indoors and in shops and storerooms, who are subject to falling objects or other hazards
 - At any other work area where there is a danger of head injury
- .03 Exceptions may be authorized by the supervisor if it is judged that circumstances require it, except in OSHA-designated hard-hat areas.
- .04 Hard hats shall be kept clean and regularly inspected. Those found to be defective shall be replaced.

124 Hearing Protection

- .01 Approved hearing protection shall be worn when employees are working in an area designated as requiring protection.
- .02 Hearing protection shall be worn on certain jobs as directed by the supervisor.
- .03 Employees who work in areas where Hearing Protection Required signs are posted shall participate in regular audiometric evaluations.
- .04 Approved hearing protection is available and recommended for use in noisy work areas.
- .05 Employees required to wear hearing protection shall comply with the proper use, limitation and care of the protectors worn.
- .06 Permissible Noise Exposures

Duration Per Day (hours)	Sound Level (dBA) *
8	90
6	92
4	95
3	97
2	100

1½	102
1	105
½	110
¼ or less	115

* Employees shall wear proper protection devices when exposed at or above these levels.

125 High Heat Environments

- .01 Employees who work in high heat environments shall follow the provisions of the Heat Stress Program.
- .02 Employees shall drink plenty of water and take regular breaks when working in high heat environments.
- .03 Employees working in the direct sun shall take extra precautions to prevent sunburn and heat stress.

126 Housekeeping

- .01 Employees shall be responsible for maintaining a clean and orderly work place, whether on Company property, in vehicles, or at a job site.
- .02 Tools and material shall be placed so as not to create a tripping hazard. Aisles, passageways and stairs shall be kept clear.
- .03 Scrap materials and debris should be picked up and disposed of promptly.
- .04 Protruding nails should be removed from boards, or the nails shall be flattened.
- .05 Vacuuming is the preferred method for dusty clean-up conditions.

Note: Coal dust vacuuming can cause static electricity buildup.

- .06 Disposal of trash and debris shall be done in an approved environmentally safe manner.

127 Indoor Air Quality

- .01 All employees shall comply with smoke-free workplace guidelines.
- .02 Review MSDS on all products and materials to identify those that should be used cautiously when applied indoor.
- .03 Maintain adequate ventilation when work tasks such as cleaning, etc., may create potential airborne irritants.
- .04 Maintain good housekeeping and minimize dusts and particulates. Avoid exposures through restricted uses of aerosols, solvents or other vapor producing products.
- .05 Report unusual conditions or concerns to Building Services Department or your supervisor.

128 Job Planning

- .01 The employee in charge shall conduct a job briefing with the employees involved before they start each job. The briefing shall cover at least the following subjects: hazards associated with the job, work procedures involved, special precautions, energy source controls, and personal protective equipment requirements. The briefing forms shall be sent weekly to the main office for safekeeping.
- .02 The person in charge shall assemble the crew and explain the work to be done, outline the steps to be followed, personal protective equipment required, and point out the hazards of the job. The person in charge should ensure that each member of the crew understands the instructions.
- .03 If the work or operations to be performed during the work day or shift are repetitive and similar, at least one job briefing

shall be conducted before the start of the first job of each day or shift. Additional job briefings shall be held if significant changes, which might affect the safety of the employees, occur during the course of the work.

- .04 A brief discussion is satisfactory if the work involved is routine and if the employee, by virtue of training and experience, can reasonably be expected to recognize and avoid the hazards involved in the job. A more extensive discussion shall be conducted: if the work is complicated or particularly hazardous, or if the employee cannot be expected to recognize and avoid the hazards involved in the job.
- .05 An employee working alone need not conduct a job briefing. However, the employee shall ensure that the tasks to be performed are planned as if a briefing were required.
- .06 The person in charge is responsible for accounting for all employees upon the completion of each job.

129 Ladders

- .01 Only approved ladders shall be used in a safe manner. Manufacturers' weight limit shall not be exceeded.
- .02 Ladders shall be visually inspected before they are used.
- .03 Defective ladders shall be tagged and removed from service. If they are not repairable, they shall be destroyed.
- .04 Employees should face the ladder and use both hands when climbing up or down. Tools should not be carried in the hand. They should be raised or lowered in a safe manner.
- .05 Employees shall not slide down a ladder. They should take one step or rung at a time.
- .06 Only one employee at a time shall work on a ladder. Exception for rescue efforts or transmission work.

- .07 The ladder shall be moved as work progresses to avoid overreaching. Two ladders shall never be lashed together to make a longer one.
- .08 When using straight or extension ladders, employees shall not climb past the third rung from top.
- .09 Employees shall ensure that both latches of an extension ladder are seated properly. The minimum overlap for extension ladders is three feet.
- .10 Ladders shall be tied off, top and bottom, to a substantial support whenever practical. Under certain conditions it may be necessary for another employee to hold the ladder to prevent falling or slipping.
- .11 The ladder shall be placed at a proper angle, with the base set out one foot for every four feet of ladder length.
- .12 When working from a ladder, and the job requires the use of both hands, an approved safety belt shall be worn as a positioning device.
- .13 If an employee is required to transfer from a ladder to a landing, the side rails shall extend at least three feet above the landing.
- .14 When using a step ladder, the employee shall not stand on the top step or on the top of the ladder.
- .15 A step ladder should not be used as a substitute for a straight ladder.
- .16 Before climbing a step ladder, employees shall make sure spreaders are fully extended and locked.
- .17 Employees shall climb the steps of a step ladder, not the support rungs.
- .18 Before using a platform ladder, it shall be checked to determine that the locking mechanism is functioning properly.

- .19 In assembling stack ladders, employees shall make certain that sections are properly locked together. Assembled stack ladders shall be limited to three sections.
- .20 Ladders shall not be painted, except that a non-skid paint may be applied to steps or rungs.
- .21 Portable metal ladders and other portable conductive ladders may not be used near exposed energized lines or equipment.

130 Lifting and Carrying

- .01 When lifting, carrying or lowering objects, approved methods shall be followed. Mechanical aids should be used whenever possible.
- .02 Approved methods include straight posture, lifting using leg muscles, good footing, and avoiding over-extending and twisting.
- .03 Loads shall be carried in such a way as to permit a clear view of the path to be followed.
- .04 When two or more employees are required to lift or pull together as a team, their efforts shall be coordinated. One shall give the signal for the group.
- .05 When carrying pipes, conduit or other long objects, special care shall be used when rounding corners and entering doorways.

131 Lighting

- .01 Where natural illumination is not adequate, artificial lighting shall be provided. Open flames shall not be used for purposes of illumination.
- .02 Temporary lighting (except battery powered) shall be protected with approved guards.

- .03 In areas where flammable or combustible vapors, gases, liquids, dust or fibers may be present, only equipment approved for the hazardous location shall be used.

132 Lockout/Tagout

- .01 Only approved and authorized personnel may apply locks or tags or other energy isolating devices to Company equipment, machinery or vehicles. All other affected personnel shall be trained in the purpose and application of the procedures.
- .02 Approved lockout/tagout, and application devices shall be the only devices used for controlling energy and tagging purposes, and shall not be used for other purposes.
- .03 Tagout devices shall be constructed and printed so that exposure to weather conditions or wet locations will not cause the tag to deteriorate or cause the tag message to become illegible.
- .04 All information required on the tag shall be properly and legibly entered so that exposure to the elements will not cause the message to deteriorate.
- .05 If more than one person is required to lockout or tagout equipment or machinery, each person will place their own personal lockout or tagout device on the energy isolating device.
- .06 When an energy isolating device cannot accept multiple locks or tags, a multiple lockout/tagout device such as a multi-holed hasp shall be used.
- .07 As an alternative, to utilizing a multi-holed hasp to lockout a device, a single lock may be used to lockout the equipment or machinery with the single key to that lock being placed in a lockout box or cabinet which allows the use of multiple locks or tags to secure that cabinet. Each employee will then use their own lock or tag to secure the box or cabinet. As each person no longer needs to maintain their lockout protection,

that person will remove their lock or tag from the multiple lockout device or the lockout box or cabinet, whichever is being used.

- .08 Shift changes shall be coordinated by the authorized employee in charge, utilizing the departmental lockout/tagout procedure to ensure the safe exchange of information and control of hazardous energies.
- .09 In the event work cannot be completed by the end of a shift, and there are no overlapping shifts or direct exchange of information between authorized employees assuming the work, employees shall follow approved department procedures to ensure the equipment or machinery is safe and properly secured, and that all required information is documented.
- .10 In the event an employee leaves the facility without removing his/her lock from equipment or machinery on which work must continue, all efforts must be made to contact that employee to return to work and remove the lock or tag.
- .11 If an authorized employee who applied the lock or tag device is not available to remove it, and cannot be contacted, the lock or tag may only be removed according to the following procedures:
 - a. A supervisor and authorized employee, from the same department as the employee whose lock or tag has been applied, shall be assembled at the equipment or machinery.
 - b. The supervisor will verify that the authorized employee who applied the device is not available.
 - c. The supervisor and authorized employee will evaluate the equipment or machinery in question to include the inspection of any energy control device, all affected energy sources, (e.g., hydraulic, electrical, chemical, pneumatic, thermal, stored energy, etc.) and any other potential hazards that may result from continuing the maintenance and/or repair, or from restarting that piece of equipment or machinery.

- d. Make all reasonable effort to notify the original authorized employee that their lock or tag has been removed.
- e. Apply as necessary any new locks and/or tags to the equipment or machinery.
- f. Document the results of this exception procedure and maintain with appropriate lockout/tagout files.
- g. Additional procedures may be required by individual department.

Lockout/Tagout Procedures

- .12 The authorized employee shall know the type and magnitude of energy sources that the machine or equipment utilizes and shall understand the hazards and the appropriate means to eliminate the hazard.
- .13 If the machine or equipment to be serviced is operating, it should be shut down using normal shut down procedures.
- .14 Operate the disconnect switch, line valve, or other isolation devices so that the equipment is isolated from its energy source(s). Always trace all lines of supply back to their source to assure that there are no added splices, connections or T's that have not been secured. Stored energy in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam or water pressure, etc., must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.
- .15 The authorized employee shall lockout and/or tagout the energy isolating devices with assigned individual locks and/or tags.
- .16 Any time a lock is used to secure an energy source, it must be accompanied by a tag identifying the person that installed it, the date and time it was installed, and a means by which the employee may be contacted.

- .17 At no time will the locking device be removed by anyone other than the person who is identified on the tag unless following specific departmental procedures.
- .18 After ensuring that no personnel are exposed, and as a check on having disconnected the proper energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate.
- .19 All operating controls should be reset to NEUTRAL or the OFF position after the initial test, if the equipment, machinery, or vehicle being serviced or repaired has stored energy which cannot be realistically removed by dissipation, bleeding down, or restrained to prevent movement.
- .20 The equipment or machine is now locked or tagged out-of-service and maintenance or repairs may begin.

Termination of Lockout/Tagout

- .21 After the service and/or maintenance is complete and the equipment is ready to be tested and/or returned to normal operation, it must be inspected for completeness of assembly, the area around the machine or equipment must be checked to ensure that exposures to hazards or risks are minimal, and that all non-essential items have been removed from the operating area.
- .22 All equipment guards must be in place and properly adjusted.
- .23 All affected employees must be notified of the intention to energize and test the machine or equipment. All non-essential personnel will move to a safe location.
- .24 The authorized employee(s) who applied any lock or tag shall remove all lockout or tagout devices and operate the energy isolating devices to restore energy to the machine or equipment in the exact reverse order that they were installed.
- .25 Do not remove the last lock or tag until all hazards have been considered and corrected as needed.

133 LP Gas Operations

Note: Refer to Section 115, Flammable and Combustible Liquids and Gases.

- .01 Only qualified employees shall fuel liquefied petroleum (LP) gas-powered vehicles.
- .02 Employees shall follow, in prescribed order, all procedures in fueling LP gas-powered vehicles and LP operations.
- .03 Employees fueling LP-powered vehicles shall wear approved personal protective equipment.
- .04 The main fuel line valve shall be shut OFF in LP gas -powered vehicles left in buildings overnight.
- .05 Employees shall not vent LP gas fuel tanks inside buildings.

134 Office Safety Practices

- .01 Use handles to open and close file drawers or cabinets.
- .02 Open one drawer at a time to prevent the file cabinet from tipping over.
- .03 Do not lean back in chairs with feet propped or raised above seat level to prevent tipping over backward.
- .04 Damaged chairs or office furniture shall not be used. They should be removed from service and tagged for repair using a Repair tag.
- .05 Only approved step stools and ladders shall be used to reach elevated objects or locations.
- .06 Turn OFF and unplug office machines prior to making adjustments, repairs, or performing maintenance.
- .07 Keep overhead bins fully opened or closed.

135 Paint and Paint Storage

- .01 Review Material Safety Data Sheets and follow recommendations for personal protective equipment, storage and handling practices.
- .02 When painting with a brush, on or near energized parts at 600 volts or above, the brush shall be attached to an approved insulated handle.
- .03 Adequate ventilation shall be maintained in enclosed areas when painting.
- .04 Only approved solvents shall be used to clean brushes. The solvent shall be disposed of properly in approved containers in accordance with environmental procedures.
- .05 Open flames shall not be permitted in the area where painting is being done.
- .06 Approved respirators shall be worn when spray painting is being done.
- .07 Air pressure to paint spray guns shall be properly regulated.
- .08 Oil-base paint, varnishes and paint thinners shall be kept and transported in approved containers.
- .09 When oil-base paint is kept in the original container, the lid shall be properly sealed so vapors do not escape. When not in use, containers of paint, lacquer, varnish, and thinners shall not be left open.
- .10 Oil-base paint, lacquers, and thinners shall be stored in an approved storage area, where there is adequate ventilation and no excessive heat.
- .11 Pressurized cans of paint, lacquer, etc. shall not be left in direct sunlight or where there is excessive heat. When not in use, pressurized cans with recoverable product shall be stored in an approved storage area. Empty cans and cans with non-recoverable product shall be disposed of properly. They shall not be punctured or placed in a fire.

136 Personal Injuries

- .01 If an employee is injured on the job, the person in charge shall be notified immediately.
- .02 The injured employee's supervisor and the employee shall determine if medical attention is required and shall make arrangements for transporting the employee to an authorized physician, clinic or a hospital, as soon as possible.
- .03 On-the-job injuries and illnesses requiring medical attention shall be referred to an authorized physician, clinic or hospital emergency room.
- .04 The supervisor shall be responsible for completing the Notice of Injury Report form as well as the Supervisor's Accident Investigation Report form.
- .05 First aid kits shall be regularly inspected and stocked with approved supplies as necessary.

137 Pneumatic and Hydraulic Tools

- .01 Pneumatic and hydraulic tools shall be operated by properly trained persons.
- .02 Pneumatic and hydraulic tools shall be used with care. They shall not be pointed at another person.
- .03 Pneumatic and hydraulic power tools shall be secured to the hose by a positive means to prevent the tool from becoming accidentally disconnected. Tools shall not be operated at pressures exceeding manufacturers' specifications.
- .04 Safety clips or retainers shall be securely installed and maintained on a pneumatic impact tool to prevent attachments from being accidentally expelled. Care shall be exercised to insure the trigger or control will not operate when the tool is laid down. The hose shall not be kinked in order to stop the tool.

- .05 Before making adjustments or changing pneumatic tools, unless equipped with quick-change connectors, the air shall be shut OFF at the air supply valve ahead of the hose. The hose shall be bled at the tool before breaking the connection.
- .06 Conductive hoses shall not be used near energized equipment.
- .07 The air tank drain valve should be opened at regular intervals to prevent excessive moisture accumulation.
- .08 Safety relief valves are required on air tanks and shall be tested periodically to insure proper operating condition. Relief valves shall not be tied down.
- .09 The supply line should be shut OFF at the source before disconnecting the air hose.
- .10 Reducers or pressure relief devices shall be used to ensure that compressed air used for cleaning purposes is below 30 psi.
- .11 Compressed air shall not be used to blow dust and dirt from clothing or the body.
- .12 Manufacturers' stated safe operating pressures for hoses, pipes, valves, filters and other fittings shall not be exceeded.
- .13 The use of hoses for hoisting or lowering tools is not permitted.
- .14 Proper tools shall be used to locate or stop leaks.
- .15 Approved personal protective equipment shall be worn as required.

138 Portable Electric Tools

- .01 The non-current-carrying metal parts of a portable electric tool, such as drills, saws and grinders shall be effectively grounded when connected to a power source unless: (1) the tool is an approved double-insulated type, (2) the tool is connected to a ground fault interrupter, (3) connected by

- means of an isolating transformer, or (4) protected by an “assured grounding system.”
- .02 All power tools shall be inspected prior to use to ensure safe operation.
 - .03 Power tools shall be used only within their design capability and shall be operated in accordance with the instructions of the manufacturer.
 - .04 All tools shall be kept in good repair and should be disconnected from the power source while repairs or adjustments are made.
 - .05 Electric tools shall not be used where there is a hazard of flammable vapors, gases or dust.
 - .06 All tools or cords shall be disconnected by grasping the plug, not the cord. Extension cords shall be maintained in good repair. Cords for power tool use shall be of the three-wire ground type. Extension lamp cords shall have guards and shall not be used for tool operations. Tools should not be lifted or lowered by the cord.
 - .07 Ground fault interrupters shall be used when an electric tool is used under damp conditions or in an enclosed vessel.

139 Powder Activated Tools

- .01 Only those employees who are qualified to use powder activated tools shall do so.
- .02 Explosive charges shall be carried and transported in approved containers.
- .03 Operators and assistants using these tools shall wear eye protection (safety goggles and/or face shield) and a hard hat.
- .04 Tools shall be maintained in good condition and serviced regularly.

- .05 This equipment shall be used only upon approved materials. Operators should know the construction and composition of materials the tool is being used upon.
- .06 Prior to use, the operator shall ensure that the protective shield is properly attached to the tool.
- .07 The operator shall inspect the tool to be sure that it is clean, moving parts operate freely and the bore is free from obstructions. The bore shall be cleared before using. A charge shall not be fired to clear the bore.
- .08 A defective tool shall be tagged with a Repair tag and immediately removed from service.
- .09 Powder activated tools shall not be used in an explosive or flammable atmosphere.
- .10 Tools shall not be loaded until just prior to the intended firing. Tools shall be unloaded immediately when work is suspended.
- .11 Only cartridges with an explosive charge adequate for the job and with proper penetration shall be used.
- .12 Tools and cartridges shall not be left unattended.
- .13 Tools shall be held perpendicular to the work surface.
- .14 Tools, loaded or unloaded, shall not be pointed at any person.
- .15 In case of a misfire, the operator shall hold the tool in place for 30 seconds. The operator shall then try to operate the tool a second time, and, if unsuccessful, shall wait another 30 seconds. Misfired cartridges shall then be removed, placed in metal container and returned to the supervisor.
- .16 Prior to firing a powder activated tool, advance warning shall be given.

140 Property Damage

- .01 Any incident that results in serious personal injury or extensive property damage to non-employees (either on Company property or in connection with Company operations) shall be immediately reported to the person in charge and to Risk Management Department.
- .02 In accidents involving Company vehicles, the employee's supervisor, as well as appropriate law enforcement agencies, shall be notified immediately, regardless of the amount of damage or who was at fault or whether the accident happened on private property.
- .03 All incidents of property damage to the public shall be reported promptly. Appropriate forms shall be completed, reviewed by the department head and forwarded to the Risk Management Department.

141 Public Safety

- .01 Whether indoors or outdoors, precautions shall be taken to warn and restrict the public's exposure to hazards created by Company operations.
- .02 When working on or near streets and highways, signs, signals and other warning devices shall be used in accordance with the General Rules and Specifications manual.
- .03 When a Company operation affects pedestrian traffic in any way, every effort shall be made to warn and limit the public from the hazards which exist.
- .04 Unattended holes or floor openings shall be covered or adequately barricaded. Warning lights with proper barricades shall be placed at each opening or obstruction left overnight.
- .05 Employees finding low or fallen wires, broken poles or other damaged electrical equipment shall guard them until relieved by personnel qualified to deal with the situation, or until

informed by an authorized person that the condition has been made safe.

- .06 Employees who recognize other hazardous conditions such as crane operations, well-drilling operations and erection of antennas adjacent to energized lines shall warn the individual and report the incident as soon as possible to System Service or their supervisor.
- .07 Employees shall ensure that visitors are not unduly exposed to hazards and should ensure that they wear appropriate personal protective equipment.

142 Respiratory Protection

Note: Use of respirators requires training specific to the type used for protection. When various types of respiratory protection devices are available, care must be taken to make the proper selection. The device must provide adequate protection against the anticipated hazard. If there is doubt, the higher protective device must be used.

- .01 Only approved respiratory protective equipment that is in good condition shall be worn.
- .02 Proper respiratory protective equipment shall be worn at any time a hazardous atmospheric condition exists. The manufacturer's instructions for respirator use shall be followed.
- .03 Employees shall be clean-shaven prior to fit testing and use of a respirator.
- .04 Employees covered by the Respiratory Protection Program shall be regularly fit-tested and shall participate in regular pulmonary evaluations to determine that they are physically able to wear a respirator while performing work.

- .05 Only employees who are trained in use, care and limitations of respirators are qualified to wear them.
- .06 Negative pressure respirators are not to be used in atmospheres containing less than 19.5% oxygen.
- .07 Class D grade air shall be used in all supplied air applications.
- .08 Breathing air hose connections must be incompatible with other fittings for industrial gases.
- .09 Air pressure at the point of attachment at the hood must be regulated within the ranges specified by regulations.

143 Scaffolding

- .01 Scaffolds shall be designed by a competent person. Scaffold erection shall be done under supervision of a competent person.
- .02 The scaffold must be inspected by a competent person prior to each work shift and after any incident which could alter the scaffold's safety.
- .03 Scaffold components shall be maintained in good repair and inspected before erection. Any broken, bent, altered or otherwise structurally unsound frame or support members shall not be used. All scaffolds and their supports, shall be capable of supporting the load they are designed to carry with a safety factor of four.
- .04 When scaffolds must be erected on soft or filled ground, sufficient sills or underpinnings shall be used to insure stability.
- .05 The legs or uprights of scaffolding shall be plumb and securely and rigidly braced to form a stable work platform. Braces shall not be forced to make them fit.
- .06 Adjusting screws, rather than blocking, shall be used to compensate for uneven ground.

- .07 Whenever possible, scaffolding shall be secured to a building structure. When this is impractical, outriggers or guying shall be used.
- .08 All open sides of platforms more than ten feet above the ground or floor shall be protected by guardrails, midrails, and toeboards.
- .09 When work is being performed over employees working on a scaffold, overhead protection shall be provided on the scaffold.
- .10 Barricades and warning signs shall be used to keep employees from passing beneath scaffolds. When employees must work or pass under scaffolds, steps shall be taken to protect those below from the hazard of falling tools or material.
- .11 A ladder or equivalent means of safe access shall be provided to the platform. Crossbraces shall not be used as a means of access.
- .12 Only “scaffold grade” lumber shall be used for platform planking. Planks shall be laid solid. Planking shall extend beyond end supports by at least six inches and not more than eighteen inches. Planks should be secured.
- .13 No scaffold occupied by employees shall be moved horizontally.
- .14 Materials, tools or debris shall not be allowed to accumulate on scaffolds and create a hazard.
- .15 Employees on scaffolds shall work on the platform and shall not use ladders or makeshift devices to gain added height from the platform.
- .16 Castor brakes on rolling scaffolds shall be locked before employees climb them. Check that castors are pinned into the frames.
- .17 Ladders shall not be placed in the horizontal position for use as scaffolding.

- .18 Scaffolds shall not be used as material hoist towers, or for mounting derricks.

144 Solvents

- .01 Only approved solvents shall be used. Solvents shall receive approval by evaluation through the procedures of the Chem Safe Program.
- .02 The MSDS and Chemical Safe Use Sheet recommendations, precautions, appropriate protective equipment and safe work practices shall be strictly followed for each approved solvent.
- .03 Only approved hand cleaning products shall be used for hand cleaning.

145 Stationary Powered Tools

- .01 Appropriate personal protective equipment shall be worn.
- .02 Machine guards shall be properly installed and shall not be removed except for inspection or repairs. Powered tools shall only be operated with the guards in place.
- .03 Stationary powered tools shall be secured to prevent movement.
- .04 A mechanical shifter shall be used to shift a belt in operation.
- .05 Correct belt dressing shall be used and applied only after the machine is turned OFF and the belt idle.
- .06 A brush or other safe method shall be used to clean chips away from the machine.
- .07 Clamps shall be used to hold work in a drill press.
- .08 Chuck wrenches shall be removed from the machine immediately after use. Prior to machine operation a check shall be made to insure the chuck wrench has been removed and machine is clear and ready for use.

- .09 Remote disconnect switches or circuit breakers shall be clearly identified and marked as to their purpose.
- .10 No gauging or calipering shall be attempted while the machine is in operation.
- .11 The tool rest shall have a maximum clearance of one-eighth of an inch from the wheel. The distance between the tongue guard and the wheel shall not exceed one-fourth of an inch.
- .12 The manufacturer's recommended wheel speed shall not be exceeded.
- .13 Side-grinding shall be performed only with wheels designed for this purpose.
- .14 Grinding wheels shall be run at operating speeds for at least one minute before work is applied. Wheels shall be dressed as necessary to prevent vibration.
- .15 Wheels shall be "ring tested" and inspected for chips and cracks before mounting. Wheels shall not be forced onto the spindle.
- .16 The work shall not be forced against a cold wheel, but shall be applied gradually until the wheel is warm. The work shall be held firmly against the tool rest.

146 Substations

- .01 Only authorized employees or visitors may enter a substation.
- .02 Upon entering a substation where other workers are present, report your presence to the person in charge in order to exchange information on special system conditions affecting employee safety.
- .03 New employees and those not familiar with the hazardous conditions inherent in a substation shall be given special instructions before they are permitted to enter.

- .04 Substations shall be considered eye protection and hard hat areas and all those who enter substations shall wear an approved hard hat as well as approved eye protection.
- .05 When working in an energized substation, gates shall be kept closed and latched except where the substation is within or adjacent to power plant or operation centers.
- .06 Substation keys shall be issued only to authorized persons. Employees are not permitted to loan substation keys to non-employees or other unauthorized individuals.
- .07 Danger High Voltage signs shall be permanently displayed on the fence on all sides of the substation. Damage to fences shall be reported immediately to the supervisor.
- .08 No parking shall be allowed within the substation unless required for work purposes.
- .09 Those entering or working in an energized substation shall not carry anything on their shoulders.
- .10 Before driving a vehicle into a substation, employees shall check clearances between protruding parts of the vehicle and the substation equipment.
- .11 No materials or equipment shall be stored under energized buses, lines or near energized equipment.
- .12 When leaving a substation, employees shall lock all doors, control houses and outside gates and check to be sure everything is secure and in proper order. Consideration shall be given to eliminating conditions which might attract unauthorized entry.
- .13 Vehicles should not be driven over wire troughs.
- .14 Barriers shall be used to warn of hazards adjacent to the work area.
- .15 Fences around substations shall be bonded and grounded.

147 Vehicle Operation

- .01 Employees operating motor vehicles shall be properly licensed. Employees shall operate vehicles in accordance with Company rules and principles of defensive driving.
- .02 Only authorized persons shall be permitted to operate Company vehicles or equipment.
- .03 Operators shall familiarize themselves with and shall obey all state and local traffic laws and ordinances.
- .04 Unauthorized persons shall not be permitted to ride in Company vehicles unless permission is granted by the supervisor.
- .05 Where seat belts and shoulder harnesses are provided, they shall be used.
- .06 Employees should ride only in the passenger compartment provided in trucks for their transportation, or seated within the body of the truck.
- .07 Internal combustion engines shall not be operated within closed garages or other buildings where adequate ventilation is not provided.
- .08 Employees shall not operate an unsafe vehicle or equipment. Unsafe vehicles or equipment shall be removed from operation and reported promptly.
- .09 Trucks shall not be operated with tailboards hanging loose, or with tool compartment doors open.
- .10 Where visibility is obscured and sufficient personnel are available, a flagman shall be placed at the rear of the vehicle being backed. The flagman shall be positioned in such a manner as to see the area to the rear of the vehicle and be seen by the operator. The operator shall obey signals given by the flagman.

- .11 Any unusual loads or any necessary overload shall be handled in compliance with state and local laws or ordinances.
- .12 When loading vehicles, care shall be taken to balance or distribute the load as equally as practical.
- .13 When loading or unloading, vehicles shall be placed in PARK position and brakes shall be set, or the wheels shall be chocked.
- .14 Vehicles should not be parked closer than eight feet to any railroad track.
- .15 Unless otherwise posted, the speed limit on Company property is ten miles per hour.
- .16 Where visibility is obscured operators shall walk around the vehicle before moving it to make sure everything is in the clear.
- .17 Operators shall consider overhead clearances.
- .18 Employees should not board or get off of a moving vehicle.
- .19 Doors shall be opened carefully to avoid striking people, objects, or other vehicles. Caution shall be exercised when opening doors on the street side of a vehicle.
- .20 Loads extending four feet or more beyond the body of the vehicle shall have an orange warning flag attached.
- .21 In attaching trailers, the safety latch on the pintle hook shall be closed and locked.
- .22 All trucks hauling poles or pole trailers shall be driven with extreme caution because of the overhang.
- .23 Adequate advanced warning shall be given to all traffic before attempting to turn with a load that projects over five feet beyond the end of the truck or trailer.
- .24 Equipment and materials carried on or in trailers shall be properly secured and the weight evenly distributed.

- .25 No one shall be permitted to ride on a trailer unless directed to do so.
- .26 "Micro Brakes" on vehicles shall not be used to hold vehicles on sloping grades.
- .27 Employees shall comply with all applicable DOT regulations when transporting hazardous materials.
- .28 Unattended vehicles should not be left running, unless the engine is needed to power auxiliary equipment.
- .29 Operators should park or plan routes so as to avoid backing whenever practical.
- .30 Registered GVW (Gross Vehicle Weight) shall not be exceeded.
- .31 The company employees not complying with these rules may be subject to corrective action..

148 Violence Prevention

- .01 Firearms, explosives or other dangerous weapons shall not be carried by anyone in the workplace or in Company vehicles.
- .02 Harassment or threats shall not be tolerated.
- .03 Threats or acts of violence on Company property shall be immediately reported to supervisor and/or the Security Department. Such acts off Company property shall be immediately reported to law enforcement, supervisors and Security Department.
- .04 Intimidation, horseplay, scuffling, practical jokes or similar activities are not permitted.
- .05 Whenever practical, employees shall announce their presence and state their business before entering customer premises. Employees should also notify the customer when leaving the property if practical.

- .06 Visible means of employee identification should be used when entering customer property.

149 Welding, Cutting and Brazing

- .01 Only those qualified to do so shall be permitted to weld. Prior to welding or cutting, the area shall be inspected for potential fire hazards.
- .02 Oxygen and fuel gas hoses shall be inspected before use. Hoses which leak or show burned or worn areas shall be removed from service.
- .03 Adequate ventilation shall be provided during welding operations or approved respiratory protective equipment shall be used.
- .04 Whenever practical, screens or fire-resistant curtains shall be placed around welding operations to protect workers nearby.
- .05 Any arc welding machine that gets wet internally shall be thoroughly dried and tested by a qualified person before being used.
- .06 Welding cables shall be inspected periodically for damage and loss of insulation. Cables in need of repair shall not be used.
- .07 Welding cable shall be uncoiled before use. The ground lead shall be firmly attached to the work. All ground connections shall be checked to be sure that they are mechanically strong and electrically adequate for the required current.
- .08 Only connectors specifically designed for the purpose shall be used to join ground and electrode cables.
- .09 A welder should not weld with cables coiled around or placed on his or her body. Repair splices shall not be permitted within ten feet of the welder.
- .10 Electrode holders, when not in use, shall be so placed that they cannot make electrical contact with persons, conductive

- objects, fuel or compressed gas tanks. Electrodes shall be removed from holders when not in use.
- .11 Welding rod studs shall be properly disposed of.
 - .12 If the object to be welded or cut cannot readily be moved, all moveable fire hazards in the vicinity shall be taken to a safe place or otherwise protected.
 - .13 Suitable fire extinguishing equipment shall be available at the site in a state of readiness for instant use.
 - .14 No welding or cutting shall be performed on used equipment, pipes, drums, barrels, tanks, or other containers until they have been cleaned so thoroughly as to make certain that there are no flammable materials present or substances that might produce flammable or toxic vapors.
 - .15 Employees exposed to the hazards created by welding, cutting or brazing operations shall be protected by proper personal protective equipment.
 - .16 Mechanical ventilation is required when welding or cutting is done. These materials: fluorine compounds, zinc, lead, chlorinated hydrocarbons, beryllium, cadmium, mercury, cleaning compounds, galvanized materials and stainless steel are particularly hazardous and have specific control requirements. Refer to MSDS for specific health requirements for these hazardous materials.
 - .17 Under no conditions shall acetylene be generated, piped or utilized at a pressure in excess of 15 psig (or 30 psia).
 - .18 Compressed gas cylinders shall be legibly marked, for the purpose of identifying the gas content, with either the chemical or trade name of the gas.
 - .19 Cylinders shall be kept away from all sources of heat and at least 20 feet from highly combustible materials, or protected by fire-resistant shields.
 - .20 Valve protection caps shall always be in place, hand-tight, except when cylinders are in use or connected for use.

- .21 Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet or by a non-combustible barrier at least 5 feet high having a fire-resistance rating of at least one-half hour.
- .22 Cylinders, valves, couplings, regulators, hoses and other equipment shall be kept free from oily or greasy substances.
- .23 Before attaching a regulator to a cylinder, stand to one side and open the valve slightly for an instant, then close it. This “cracking” of the cylinder valve will clean the valve of dust or dirt.
- .24 Before a regulator is removed from a cylinder valve, the valve shall be closed and the gas released from the regulator.
- .25 An acetylene cylinder valve shall not be opened more than one and one-half turns of the spindle. This allows ready closing of the valve in an emergency situation.
- .26 Always use the proper hoses. Fuel gas hose is usually red (sometimes black) and has a left-hand treaded nut for connecting to the torch. Oxygen hose is green and has a right-hand threaded nut for connecting to the torch.
- .27 Pressure-reducing regulators shall be used only for the gas and pressures for which they are intended.
- .28 Gauges on oxygen regulators shall be marked Use No Oil.
- .29 Welding cable, hoses, and other equipment shall be placed so that they are clear of passageways, stairways and ladders unless properly guarded.
- .30 Matches, lighters, or hot work shall not be used to light a torch. A friction striker or other approved device shall be used.
- .31 After welding or cutting is completed, the hot metal shall be marked or other means shall be used to warn others.

- .32 When welding or cutting in an area where flammable or combustible materials are present a Hot Work Permit shall be obtained.

150 Work Area Protection

- .01 As much advance warning shall be given as practical. Signs, and in some cases lights, shall be placed well in advance of the work area to allow the motorist time to adjust to upcoming conditions in accordance with approved standards.
- .02 All signs shall be located on the side of the roadway and maintained at right angles to, and facing, oncoming traffic.
- .03 Only approved warning devices shall be used. The Workers Ahead signs shall be equipped with orange flags for better visibility.
- .04 Signs shall be removed when the work has been completed. If work is temporarily suspended signs should be covered or removed.
- .05 When the work area is adjacent to, or encroaches upon, a lane of traffic, traffic cones shall be used as delineators to channel traffic away from the work area. The taper shall be long enough so vehicles approaching the restriction have sufficient distance in which to adjust their respective speeds and merge to a single lane before the end of the transition.
- .06 Every effort shall be made to move traffic around the work area as safely and expeditiously as possible. If there is enough room for two vehicles to pass each other, cones shall be used to divide the space into two lanes. If there is only room for one- way traffic, the entire lane shall be blocked off.
- .07 In a congested area where there is heavy traffic, it may be necessary to designate a member of the crew as flagman. The flagman shall wear an orange vest and carry a red flag or approved paddle.

- .08 Under extremely heavy traffic conditions, a second flagman may be required. Each flagman shall be able to see the other clearly so as to coordinate their signals.
- .09 In a more congested area, where vehicles are parked in designated parking spaces at the curb, a Workers Ahead sign shall be placed at an appropriate distance to the rear of the truck. A cone and flag shall be placed immediately behind the truck.
- .10 Warning lights shall be used after dark. Steady-burning lights or reflective cone collars shall be used on delineators to channel traffic. Flashing lights shall be used as advance warning and shall be attached to the very first sign as the motorist approaches the work area.
- .11 The rotating light on the truck shall be used at night as well as daytime when conditions warrant it.
- .12 The flashing arrow board shall be used well in advance of the work area on interstate and other high-speed highways.
- .13 Work area protections shall be installed along sidewalks where pedestrians may encroach upon the work area. Added protection is recommended in high-density downtown areas.
- .14 When entering or working on customer property, employees shall check for hazardous conditions, such as tripping hazards, dogs, or other potentially dangerous animals.

151 Employee Reporting of Incidents

- .01 Incidents, no matter how slight, shall be reported to the person in charge as soon as practical.
- .02 All minor injuries shall be properly treated and a report made to the employee's supervisor.
- .03 When the services of a physician are necessary, a physician designated by the Company should be used whenever possible. Such injuries shall be reported to management immediately.

- .04 In case of serious or fatal accidents to employees or equipment, appropriate action shall be taken promptly. The accident shall be reported immediately to the department head or manager and the safety director.
- .05 The supervisor's report shall be made on the same day the accident occurs and should be made as soon as possible to the main office.
- .06 The report shall be given to the person at the company responsible for insurance claims or the Safety Director.
- .07 Line outages and incidents where underground cables, lines, and piping are cut as well as overhead circuit trips and lock-out, are serious in nature and will be immediately reported.

152 SAFETY MEETINGS

- .01 The crew foreman SHALL see to it that a pre-job briefing is completed and documented before each job per OSHA regulation 1910.269 (c) without exception
- .02 The crew foreman SHALL also conduct a safety meeting with his employees once a week. The subject, date, time, location, and list of attendees SHALL be recorded on the safety meeting form. The Safety Director SHALL perform periodic audits to see that this is being done.