
**MOUNTAIN REGIONAL WATER
SPECIAL SERVICE DISTRICT
of Summit County**

Safety Regulations and Manual



Prepared By
The Administrative Staff of
Mountain Regional Water Special Service District

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1.0 GENERAL POLICY GUIDELINES

1.01 Purpose

- A. The accident prevention policies set forth in this manual (the "Safety Policies") are for the purpose of preventing accidents to employees, persons and property. These Safety Policies shall be effective as of the date of issuance hereof and shall be complied with by every employee of Mountain Regional Water Special Service District (the "District") under every circumstance where they are applicable. Their violation may lead to immediate disciplinary action.
- B. When an employee of one department is assigned to work on equipment or facilities subject to the jurisdiction of another department such employee shall follow the established procedures or policies of the latter. Such employees shall contact the responsible "Supervisors" of that department, and determine the hazards that may be encountered in that particular department.

1.02 Amendments

Alterations, revisions or amendments to these Safety Policies shall be made in accordance with Title 2, Chapter 9 of the Summit County Code.

1.03 Enforcement

- A. Employees acting in a supervisory capacity, either regularly or temporarily, shall require all employees working under their supervision to comply with all applicable Safety Policies and safe practices. Failure to enforce Safety Policies may result in disciplinary action up to and including termination. See Personnel Policies – Section 13 – Disciplinary Procedures.
- B. When an employee observes a hazardous condition or an unsafe action by another employee (including any level of supervision) that may cause injury or property damage or interfere with service, regardless of the department in which such condition exists, the employee shall report it promptly to their Supervisor and the "Safety Manager", and, when necessary, guard the area in which the unsafe condition exists until it can be corrected.
- C. When an employee receives a report of any hazardous emergency condition, the employee shall obtain the informant's name, the exact location and the nature of the hazardous emergency condition. The employee shall then immediately contact their Supervisor and the Safety Manager so appropriate steps can be taken to correct the condition.

1.04 Education

Each Supervisor is responsible to ensure that all employees in their department are instructed and advised concerning these Safety Policies and their application.

1.05 Knowledge

Each employee of the District shall be required to know and understand each of these Safety Policies that apply to the work being performed for the District. Employees shall be subject, at any time, to an examination on these Safety Policies which apply to their duties.

1.06 Interpretation

These Safety Policies shall be strictly interpreted to bring about maximum compliance and sage conduct, and shall have precedence over any conflicting instructions elsewhere given. However, if lawful and applicable governmental regulations are contrary to these Safety Policies, such governmental regulations shall take precedence.

1.07 Supplementary Information

Additional instructions and information relating to safe performance of work as issued through the medium of circular letters, operating instructions, bulletins, etc., by the Supervisor, "General Manager" or the Safety Manager shall be used to supplement these fundamental Safety Policies as necessary and shall be made available by Supervisors and read by all affected employees.

1.08 Governmental Safety Standards

In addition to these Safety Policies, the District and its employees, in the performance of their work, are also subject to the regulations of various governmental agencies including "Federal", "State", and "County". Supervisors shall make certain that all applicable provisions of governmental regulations are satisfied.

1.09 Limitations on Access to District Facilities and Properties

Minors, visitors or uninstructed workers shall be accompanied by a Qualified Employee on job sites and around District properties where life, safety, or property might be endangered. A Qualified Employee is defined as an employee who has been properly trained in these Safety Policies and all applicable Federal, State and County regulations pertaining to the subject District property or job site.

1.10 Locking Restricted Areas

All District properties where public access is restricted shall be kept closed and locked at all times except when a Qualified Employee has such areas or structures under direct observation.

1.11 Supervisor Responsibilities with Accident Prevention

OSHA General Duty Clause of the OSH Act of 1970 Duties - 5

The District shall ensure that its facilities and properties are free from recognized hazards that are causing or are likely to cause death or serious physical harm to its employees. The District shall comply with occupational safety and health standards promulgated under OSHA.

District Requirements

- A. For the purpose of these Safety Policies, the term Supervisor shall mean any person directly in charge of the work.
- B. The Supervisor shall have the following responsibilities:

1. Make certain that employees are instructed and advised concerning these accident prevention Safety Policies and make periodic checks to see that instructions are carried out.
2. Ensure that employees use the proper protective equipment and suitable tools for the job. Any safety device, tool or equipment that, upon inspection, is found defective or unsafe shall not be used, but immediately replaced or repaired.
3. Be constantly on the alert for unsafe work practices and unsafe conditions, and take immediate corrective action.
4. There shall be a tailboard briefing, which means pre-job discussion, before starting to work, so that each employee involved thoroughly understands the work to be done. Every Supervisor shall inform the crew together and briefly outline the proper work procedures, the crewmembers part in it, and the Safety Policies that apply. Under no circumstance shall safety be sacrificed for speed.
5. Issue definite and specific instructions regarding work of an unusual nature.
6. Assign employees to work on the basis of their physical fitness, training and experience.
7. Any Supervisor having reasonable grounds to suspect an employee under their jurisdiction is either mentally or physically unfit for the work assigned, shall prohibit such employee from working until satisfactory medical or other evidence indicating their fitness is secured.
8. Require the employees under their supervision to report all accidents when reasonably possible. All unreported accidents will be reviewed and responsible parties will be subject to disciplinary action for not reporting the accident. In case of injury, employees are to ensure that the injured employee receives medical attention if the injury warrants medical attention. Employees should make the injured employee comfortable and may render "Good Samaritan" first aid to those injured.
9. Investigate each accident in which an employee is involved, to determine the unsafe act and/or the conditions contributing to the accident and take immediate action to eliminate such unsafe acts or conditions.
10. Ensure that all necessary reports are completed promptly after an accident. Accident reports should include injuries, damages, and the possible cause.
11. Ensure that appropriate action is taken on all safety hazards called to the attention of the Supervisor by employees under his/her supervision or by his/her department head or the Safety Manager.
12. Be familiar with the first aid principles for which they have been trained. Ensure that first aid kits are regularly inspected and properly equipped.

1.12 Employee Responsibility

OSHA General Duty Clause of the OSH Act of 1970 Duties - 5

Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders promulgated by OSHA, which are applicable to their actions and conduct.

District Requirements

- A. The employee shall have the following responsibilities:
 - 1. Be responsible for performing work in a safe manner and do everything possible to prevent injury to themselves, to fellow employees, to the public, as well as to prevent damage to District equipment or property of others.
 - 2. Use only those tools and material which have been approved for District use, and employ them only for the purpose for which they were designed.
 - 3. Avoid engaging in practical jokes, scuffling, horseplay, and urging persons to take unnecessary chances.
 - 4. Correct or report promptly all District property which appears to be unsafe or defective and which might be, or become, hazardous to employees or to the public.
 - 5. Promptly report to Supervisor all injuries or accidents, regardless of how minor.
 - 6. Be familiar with the first-aid principles received in training.

1.13 Employee Qualifications

- A. All employees shall be qualified by reasons of training, experience or knowledge, having complied with specific requirements in the installation, maintenance and/or operation of apparatus and the hazards involved.
- B. Unqualified or inexperienced employees working on or about unfamiliar equipment shall work under the direct supervision of an experienced and qualified person at the site.
- C. Employees who do not normally work on or about hazardous equipment but whose work brings them into these areas for certain tasks shall proceed with this work only when authorized by a Qualified Employee.
- D. If an employee is in doubt as to the safe performance of any work assigned, the employee shall request instructions from the Supervisor or another Qualified Employee.
- E. Knowledge. Each employee shall carefully study those accident prevention Safety Policies applicable to his/her duties. Accident prevention Safety Policies shall be obeyed. Ignorance will not be accepted as an excuse for violation of any Safety Policies. Employees may be periodically examined on their knowledge of these Safety Policies that apply to their duties.
- F. Ability. Before proceeding with a job, the employee shall be satisfied that the work can be performed without injury. If the employee is assigned work, which the employee is not qualified to perform, this should be brought to the attention of the Supervisor.
- G. Understanding. Before starting a job, each employee shall thoroughly understand the work to be done, their part in it, and the Safety Policies that will apply.

1.14 Smoking

- A. Employees shall not smoke in proximity to flammable liquids, explosives, dusts, gases or where no smoking signs are displayed either on property occupied by the District or on the premises of other persons. Employees who wish to smoke may do so outside of District facilities and vehicles, as long as, they are at least 25' from any entry way, exit, open or closed window or air intake.
- B. Matches, cigars, cigarettes, tobacco or other substances must not be discarded while still burning except when placed in a proper receptacle or otherwise disposed of safely.

1.15 Drug Free Work Place

It is the policy of the District that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance and/or alcoholic beverage in the workplace is expressly prohibited. See Personnel Policies – Section 12 – Productive Work Environment.

1.16 Housekeeping

OSHA Housekeeping Requirements, 1910.141 and 1926.25

All District facilities and properties shall be kept clean to the extent that the nature of the work allows.

District Housekeeping Requirements

- A. Good housekeeping conditions shall be maintained at all work locations and in all vehicles.
- B. Permanent floors and platforms shall be free of dangerous projections or obstructions and shall be maintained in good repair, and free from oil, grease and water. Where the type of operation necessitates working on slippery floor areas, such surfaces shall be protected against slipping by the use of mats, grates, cleats or other methods employed to provide adequate traction and protection.
- C. Stairways, aisles, exits, roadways, and walkways and material storage areas in yards shall be kept clear and free from obstructions, depressions, and debris.
- D. Material and supplies shall be stored in an orderly manner to prevent their falling or spreading and to eliminate tripping and stumbling hazards.
- E. Flammable materials, such as oil-soaked and paint covered rags, waste, shavings, packing and rubbish, shall be kept in approved metal containers with self-closing lids. Containers shall be emptied as soon as practical.
- F. No clothing shall be allowed to hang on walls, behind doors, or in the space behind the switchboards. Rubbish and unused clothing shall not be allowed to accumulate in lockers. Only approved clothing racks are to be used.
- G. Paper and other combustible material shall not be allowed to needlessly accumulate or be stored improperly. Weeds or other vegetation shall not be permitted to grow without proper maintenance in or around storage sheds, buildings or other structures.

- H. Containers for hazardous materials such as caustics, acids, harmful dusts, etc., shall be equipped with approved covers.
- I. Waste debris at construction sites shall be removed as they accumulate or at frequent intervals.
- J. Air, water lines, and hoses shall be coiled up or stored in racks when not in use.

1.17 First Aid

- A. Employees should familiarize themselves with, and become reasonably proficient in, basic life support and the treatment of injuries such as CPR and general first aid.
- B. Immediate first-aid treatment must be secured for every injury, however trivial it may appear.
- C. Properly equipped and approved first aid kits must be maintained on vehicles, shops, offices, attended plants or stations and such other locations as may be considered necessary.

1.18 What to do when an Accident Occurs

District Accident Requirements

The following policies regarding the reporting of all accidents and the preliminary investigations thereof shall be strictly observed:

- A. Accidents to Employees:
 - 1. All accidents resulting in serious injury or death to an employee on duty shall immediately be reported by the first available employee at the scene of the accident (in person, by radio or telephone) to one or more of the following:
 - a. The immediate Supervisor.
 - b. The General Manager
 - c. The Safety Manager.
 - d. Call 911, where appropriate.
 - 2. Each employee shall thoroughly familiarize themselves with these instructions.
 - 3. All accidents to employees resulting in personal injury or death, shall be reported in writing and on an "Employee Injury Report" (FORM HR-36).
- B. Accidents to Non-Employees:
 - 1. All accidents in which the District may be involved resulting in personal injury or death of persons not employed by the District, shall immediately be reported by the first employee having knowledge thereof (in person, by radio, or telephone) to District personnel designated in Section 1.18(A)(1).
 - 2. It is particularly important to procure names and addresses of all witnesses to the accident.
 - 3. It is important in automobile accidents to ascertain positively if any non-employee has been injured. Report the slightest injury or suspicion thereof.

4. If there is any doubt as to the action that should be taken regarding medical or hospital treatment, communicate at once with the Supervisor or Safety Manager.
5. Do not assume responsibility for any accident. Do not obligate the District to pay for ambulance, doctor, or hospital services rendered to non-employees. Do not make statements admitting liability or indicating that the District will agree to a settlement. Do not discuss any accident in the presence of anyone without the proper District authority present.
6. The written report of accidents involving personal injury or death to non-employees shall be made immediately on the proper report form.

C. Automobile Accidents:

In any accident involving the operation of a District vehicle, the employee driving shall:

1. Stop at once, secure the scene, determine if anyone was injured, determine the nature and extent thereof, and if anyone is injured, call for medical attention. Employees should make the injured employee comfortable and may render first aid on the basis of the Good Samaritan provisions of state law. The employee shall not obligate the District for any medical expenses or claims for non-employees.
2. Obtain the names and addresses of all witnesses before they leave the scene of the accident.
3. Obtain the name and address of the driver of each automobile involved and the names and addresses of all passengers.
4. Secure all available data from the registration certificate, including license number, make, type, model and year of each automobile involved.
5. Secure all available data from the operator's license of the driver of each automobile involved.
6. Note the time and place of the accident.
7. Notify the District personnel designated in Section 1.18(A)(1), giving all pertinent information concerning the accident.
8. Avoid discussing the accident and make no admissions of responsibility to anyone except authorized District representatives. No unauthorized employee shall give statements to the media. Necessary data given to a law enforcement officer should be given in private.
9. Carefully indicate obvious damages to each vehicle involved.
10. Exchange names, addresses, driver's license and registration certificate numbers with other person involved in the accident.
11. If a parked vehicle is involved, or property damage sustained, and the owner is not present, try to locate such owner and give your name and address, or leave a notice containing such information in a conspicuous place on or in the vehicle or damaged property.

12. If the accident results in injury or death of any person, file a written report with the local law enforcement agency as soon as practical.
13. Secure name and badge number of the police officer that investigates the accident.
14. **All accidents are reportable no matter how minor and shall be documented on a "Vehicle Incident Report" (FORM HR-25).** Failure to report an accident is grounds for disciplinary action up to and including termination.

D. Decisions for Handling Accidents:

All decisions as to District liability, investigation, adjustment of claims and related policy decisions, which must be made regarding the handling of accidents, settlement and adjustment, shall be referred to the General Manager. Such decisions will be made after consideration of the reports from the Safety Manager and Supervisors involved or other District officials whose activities are affected.

1.19 Reporting Hazardous Conditions

- A. When an employee observes a hazardous condition that may cause injury or property damage or interfere with service, regardless of the department in which such condition exists, the employee shall report it promptly to the department or Supervisor involved, and when necessary, guard the area in which the unsafe condition exists until it can be corrected.
- B. When an employee receives a report of any hazardous emergency condition, the employee shall obtain the informant's name, the exact location and the nature of the hazardous emergency condition. The employee shall then take immediate appropriate steps to correct the condition, and report it to the Supervisor.

1.20 Emergencies

Where an emergency involves a hazard to life, a Supervisor or employee in charge of affected work may modify or suspend any policy deemed necessary, in order to permit proper handling of the specific emergency. The person so acting shall be fully accountable for the reasonableness of actions taken and for any accident or interruption resulting therefrom.

1.21 Private Property Safety

- A. An approved-type ladder or other safe support shall be used by an employee when it is necessary to reach an elevation.
- B. Upon entering a cellar, basement, stairway or through gates, an employee shall ensure that the opening is closed after entering or exiting.
- C. Regularly used walkways and gates should be used by employees in order to prevent damage to customer property and to minimize employee exposure to slipping and tripping hazards.
- D. If unfriendly animals are encountered, an employee shall note their locations in District records and, where necessary, arrangements shall be made with the customer to remove or restrain the animal during the time and from that portion of the premises where the employee is required to perform duties.

- E. When entering a customer's premises, an employee shall make their presence known and be alert for dogs. Do not make unexpected or loud noises. Do not try to slip in without arousing the dog. Dogs are resentful in both cases. If an employee is confronted with a vicious dog, stand still while facing the dog. Do not try to make friends. Call the owner and wait. If the owner does not come, back slowly away to safety. Do not try to pet any strange dog unless the dog is obviously friendly. Watch for places such as under steps, in corners, etc., where small dogs may lurk. Employees should not turn their backs on any dog that is not obviously friendly. In case an employee is bitten by a dog, and the skin is broken, and if there is a delay in seeing a doctor, wash the bite thoroughly with soap and water, bandage, and see a doctor as soon as possible. If the dog is wearing a tag, the dog should be reported to the Animal Control Shelter so the dog can be placed under observation. Employees shall always report dog bites to their Supervisor.
- F. Employees shall be alert to hazards, such as slippery walks or steps. When walking or working close to buildings, watch out for building projections such as low eaves, awnings, or open windows, in order to prevent injuries to the head. Do not write meter readings while walking, as numerous injuries occur to the head and body due to inattention.
- G. Whenever an employee is operating a District-owned vehicle, a rental, or a vehicle the employee is being compensated for on a mileage or salary basis, the employee shall be responsible for its proper and safe operation.
- H. When defective District or customer owned service equipment is found which creates a dangerous condition, such as broken meters, bypass jumpers, back feed conditions, immediate and necessary steps shall be taken to protect the customer, public and fellow employees.
- I. The greatest of care should be taken to prevent damage to the customer's property. Fences, lawns, walks, shrubbery, driveways, etc., must be respected. If, however, in spite of the greatest of care an employee finds damage has been done, notify the owner, Supervisor, and Safety Manager as soon as practical.

1.22 Personal Protective Equipment

OSHA Personal Protective Equipment General Requirements 1910.132 and 1926.28

Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.

District Personal Protective Equipment Requirements

Protective equipment, including personal protective equipment for the eyes, face, head and extremities, protective clothing, respiratory devices and protective shields and barriers that are provided shall be used and maintained in a clean and reliable condition. Where employees provide their own protective equipment, the Supervisor shall be responsible to assure its adequacy, including proper maintenance and care of such equipment.

1.23 Safe-Work Dress

- A. Each employee shall wear suitable clothing, at all times, to minimize danger from hazardous or environmental exposure, moving machinery, hot or injurious substances, toxic chemicals, open flames, explosions, etc.
- B. A good quality work shoe or boot with steel toes and shanks, is considered essential. The safety-shoe is strongly recommended to minimize injuries to the feet. Open toed, canvas, or tennis shoes are not acceptable work foot apparel. When safety work boots are supplied by the District, they shall be worn at all times while working.
- C. When there is a risk of injury by hair entanglement from moving parts of rotating machinery (such as drive shafts, pumps, stringing equipment, etc.) employees shall confine their hair to eliminate the hazard. Confinement can be accomplished by rubber bands, hairnets, snoods or hard hats with chinstraps (if a hard hat is worn, make sure it sits down on the head properly to give maximum protection). The apache headband will not be acceptable. Nothing shall be misconstrued as stating that the hair will have to be cut. Where employees wear respirators, they shall ensure a good face seal. Such conditions, as a growth of a beard or sideburns, will inhibit a good face seal.
- D. Watch chains, metal wristwatch bands, key chains, rings or metal bracelets shall not be worn when working on or adjacent to exposed energized equipment or machinery.
- E. Contact lenses shall be permitted, unless a potential eye injury exists from electrical flash, arc from welding, chemical splash, and exposure to toxic fumes. Approved safety eyewear shall be worn when the potential for hazardous eye exposure exists.

1.24 Safety Hard Hats

OSHA Requirements for Head Protection - 1910.135 and 1926.100

The District shall ensure that each affected employee wears a protective helmet when working in areas where there is a potential for injury to the head from falling objects. Also, the District shall ensure that a protective helmet designed to reduce electrical shock hazard is worn by each such affected employee when near exposed electrical conductors that could contact the head.

District Head Protection Requirements

- A. The primary function of the safety hard hat is to provide protection against impact. The secondary function is to protect the wearer in the event of accidental contact with energized conditions or equipment. Hats shall comply with current OSHA standards. The following instructions shall be observed in the care and use of the safety hard hats.
- B. Usage of safety hard hats shall be mandatory for all employees while engaged in work or supervising work of any phase of District operations involving field engineering, construction, maintenance, and operations within a construction site or work zone.
- C. Hard hats shall be issued to all employees when required, and made available for all visitors while on the work site.
- D. Hard hats shall not be painted.
- E. Non-approved objects shall not be inserted or attached to hard hats, such as decals.

- F. Holes shall not be drilled in the hard hats.
- G. For the purpose of identification, the employee's name may be placed on the hat shell.
- H. Accessories (sweat bands, chin straps, and winter liners) when replaced shall be to manufacturer's specifications.
- I. Hard hats shall not be marked or defaced by scratching or cutting by any method, which defaces the shell.
- J. The crown straps of the suspension system shall not be tampered with. The hard hat suspension system acts as a shock absorber and is nonadjustable.
- K. Each employee is responsible for checking safety hard hats for damage, such as cracking or chipping. When cracking or chipping is found, it shall be reported to the Supervisor who will determine if replacement is necessary.
- L. Hard hats shall be replaced when expired.

1.25 Eye and Face Protection

OSHA Requirements for Eye and Face protection -1910.133 and 1926.102

The employer shall ensure that each affected employee uses appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. The District shall ensure that each affected employee uses eye protection that provides side protection when there is a hazard from flying objects. Detachable side protectors (e.g. clip-on or slide-on side shields) meeting the pertinent requirements set forth by OSHA are acceptable. The District shall ensure that each affected employee who wears prescription lenses while engaged in operations that involve eye hazards wears eye protection that incorporates the prescription in its design, or wears eye protection that can be worn over the prescription lenses without disturbing the proper position of the prescription lenses or the protective lenses. Eye and face PPE shall be distinctly marked to facilitate identification of the manufacturer.

District Eye Protection Requirements

- A. Protective eye and face equipment shall be required where there is a reasonable probability of injury that can be prevented by such equipment. Additionally, the protective eyewear should meet ANSI Z87 and shall provide adequate protection against the particular hazards for which they are designed. No unprotected employee shall knowingly be subjected to hazardous environmental conditions. Suitable eye protectors shall be worn where machines or operations present the hazard of flying objects, glare, liquids, injurious radiation or a combination of these hazards.
- B. Employees whose vision requires the use of corrective contact or prescription lenses in glasses (spectacles) and who are required to wear eye protection, shall wear goggles and/or face shield covering the lenses. However, prescription safety glasses are permitted.
- C. Eyeglasses of non-safety type are not a substitute. Safety glasses or full cover goggles or face shields which fit properly and are kept clean at all times, shall be worn when an employee is engaged in or close to work involving:
 - 1. Drilling or chipping stone, brick, concrete, paint, pipe coatings or metal.

2. Power grinding, buffing or wire brushing, whether there is a built-in eye shield or not.
3. Dust and flying articles (such as using compressed air to clean materials or machinery).
4. Flame welding, cutting or burning. (Approved colored lenses shall be used.)
5. Drilling with hand or electric drill overhead.
6. Pouring hot compounds or the use of other hot or injurious substances.
7. Handling acids, caustics, toxicants, or other similar liquids or gases, except when approved complete head coverings are worn.
8. Exposures to electrical arc or flash.
9. Cleaning or scalding pipe.
10. Thermite (Caldwell) type welders.
11. Flying particles caused by other workmen if employee is within the range of such particles. (A suitable screen around the work area may be used instead.)
12. Injurious light or heat rays or any other danger that poses a potential injury to the eyes.
13. Any situation where the Supervisor in charge considers that the use of eye protection is necessary.

1.26 Safety Vests

OSHA Requirements for Flagmen - 1926.201

Flagmen shall be provided with and shall wear a red or orange warning garment while flagging. Warning garments worn at night shall be of reflectorized material.

OSHA Requirements for Working Around Water - 1926.106

Employees working over or near water, where the danger of drowning exists, shall be provided with U.S. Coast Guard-approved life jacket or buoyant work vests.

ANSI Standard for Visibility Apparel, 107-2015

The scope of ANSI standard 107-2015 is to specify the requirements for high visibility apparel to be worn during any hazardous situations and under any lighting conditions.

Three garment type designations are provided:

1. **Type "O"** – for occupational workers who are not required to wear high visibility safety apparel, but may still work in an environment with moving equipment/vehicles and accompanying struck-by hazards, and visibility is a concern.
2. **Type "R"** – for occupation workers who are exposed to roadway traffic and who work in an environment with moving equipment/vehicles.
3. **Type "P"** – this designation gives additional options for fire, police, and EMS personnel who have other potential hazards that require them to access equipment on their person.

These types are further broken down into classes 1,2, or 3 which designate the minimum amount of background and retroflective material, and specify placement of retroflective material as well as any technical requirements for garment design.

District Safety Vest Requirements

- A. The District requires Type R, class 2, an orange or fluorescent green highly reflective safety vest and safety hard hat, shall be worn when employees are engaged in flagging traffic, surveying within the right-of-way, and locating underground utilities.
- B. The District requires Type O, class 1, a yellow t-shirt, when working in an off-road environment with moving vehicle/equipment.
- C. When working on/or over water where the danger of drowning exists, employees shall wear a U.S. Coast guard approved life jacket or buoyant work vest.

1.27 Protective Footwear

OSHA Protective Footwear Requirements, 1910.136 and 1926.96

The District shall ensure that each affected employee uses protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where such employee's feet are exposed to electrical hazards.

District Protective Footwear Requirements

Safety shoes are required and provide protection when handling heavy materials, or for protection of the feet from rolling or falling objects, and shall be worn when the extent of the hazard warrants their use. All protective footwear should meet the ASTM F 2413 standard.

1.28 Hearing Conservation

OSHA Hearing Conservation Requirements, 1910.95, 1926.101, and 1926.52

District Hearing Conservation Requirements

- A. When employees work in areas with noise levels exceeding 85 dB District approved personal protective equipment shall be worn. Protective hearing equipment must have an NRR rating of at least 25.
- B. Hearing protection equipment shall be maintained in a sanitary and reliable condition.
- C. Noise monitoring is available upon request.

1.29 Hand Protection (Gloves)

OSHA Hand Protection Requirements 1910.138

The District shall select and require employees to use appropriate hand protection when employees' hands are exposed to hazards, such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes.

District Hand Protection Requirements

- A. When necessary to protect the hands from cuts, bruises, abrasions, contact from chemicals, electrical contact, and heat, suitable hand protection shall be worn to minimize or eliminate injury.
- B. Gloves should not be used while working on moving machinery, such as drill presses, lathes, table saws or other such rotating or moving equipment that might catch on the glove and pull it and the employee's hand into a hazardous area.

1.30 Confined Space

OSHA Confined Space Requirements, 1910.146

This regulation states the requirements, for practices and procedures, to protect employees from immediate danger to life and health hazards associated with "Confined Space" areas. Confined Space is defined as a space that is large enough to be entered; has limited means of entry and exit; and is not designated for continuous employee occupancy. A permit-required Confined Space has one or more of the following characteristics:

- (1) Contains or has a potential to contain a hazardous atmosphere;
- (2) Contains a material such as grain or sawdust that has the potential for engulfing an entrant;
- (3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor, which slopes downward and tapers to a smaller cross-section; or
- (4) Contains any other recognized serious safety or health hazard.

District Confined Space Requirements

- A. The District maintains a list of all identified permit-required Confined Space areas.
- B. While working under Confined Space situations the following safety procedures will be followed throughout the job.
 - 1. Upon reaching a Confined Space (manhole, etc.) air quality shall be tested before removing the lid if possible. Testing will be done with a calibrated direct-reading instrument, for the following conditions in the order given:
 - a. Oxygen content
 - b. Flammable gases and vapors, and
 - c. Potential toxic air contaminants.
 - 2. Upon removal of the lid the air quality shall be tested from the top to the bottom of the Confined Space area.
 - 3. If the only hazards in the Confined Space area are atmospheric, where testing can be performed periodically and hazards can be controlled by the use of continuous forced-air ventilation then alternative entry procedures may be used and full permit-required Confined Space procedures are not required.

4. If a visual inspection reveals a problem, every effort should be made to resolve the problem from above ground. The use of continuous forced air ventilation shall be used in resolving the problem. With additional testing as necessary to ensure the hazardous atmosphere has been removed.
 5. When all methods of correction have been satisfied, then preparations shall be made to allow for the employee to enter the Confined Space.
- C. While working under permit-required Confined Space situations the following safety procedures will be followed throughout the job.
1. Before entering a permit-required Confined Space, a permit must be obtained with the following items:
 - a. The location of space to be entered.
 - b. The purpose of the entry.
 - c. The date and duration of entry permit.
 - d. The authorized entrants by name and department.
 - e. The personnel serving as attendants.
 - f. The hazards of the permit space to be entered.
 - g. The measures used to lockout or purge or make safe the permit space.
 - h. The results of initial and periodic tests.
 - i. The rescue and emergency services to be summoned and the numbers to call.
 - j. Personal protective equipment and testing equipment used.
 - k. Any other information necessary to ensure safety of the employee in the particular Confined Space.
 2. At each permit-required Confined Space entry, the District will have the following on the scene at all times:
 - a. At least two people. One entrant and one attendant.
 - b. Hand held radio or cellular phone for communication with emergency services.
 - c. Safety personal protective equipment including:
 - i. Ventilation system.
 - ii. Air monitoring / testing equipment (constant monitoring).
 - iii. Tripod rescue retrieval device.
 - iv. Full body harness with a retrieval line attached at the center of the entrant's back near the shoulder level.
 - v. Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency.
 - vi. A copy of these procedures.
 - vii. Any other equipment that is necessary for safe entry into and rescue from permit-required Confined Space areas.
 3. Once the above requirements have been met and preparations are being made to enter the permit-required Confined Space, the following will be done:
 - a. Proper precautions shall be taken to barricade and protect the area.
 - b. Entrant shall have all personal protective equipment listed above and be properly harnessed.
 - c. Attendant shall be positioned and able to give full attention to the entrant.

- d. If problems arise, appropriate emergency help shall be notified or standing by.
 - e. When necessary the air will be purged.
 - f. The entrant shall be monitored while the problem is being fixed. Constant monitoring of air quality is of utmost concern.
 - g. Upon completion of the Confined Space job, the permit shall be filed and any special conditions encountered will be noted for future reference.
- D. In the event the District arranges for an outside contractor to perform any work that involves permit-required Confined Space entry, it will be the responsibility of each outside contractor to comply with the OSHA Confined Space requirements.
 - E. Training will be provided to each affected employee to acquire the understanding, knowledge and skills necessary for the safe performance of their assigned duties and establishing proficiency in the duties required by the OSHA standard.

1.31 The Control of Hazardous Energy (Lockout/Tagout) 1910.147

This section addresses the practices and procedures necessary to disable machinery or equipment, thereby preventing the release of hazardous energy while employees perform servicing and maintenance activities.

District Lockout/Tagout Requirements

- A. Specific, step-by-step procedures for de-energizing, locking out and restarting specific machines, equipment and individual power sources are maintained and readily accessible by employees in their respective departments
- B. General Lockout/Tagout Procedures:
 - 1. Prior to beginning, authorized personnel must identify the following:
 - a. The type and magnitude of the energy involved.
 - b. The location of the energy isolating device.
 - c. Affected employees.
 - 2. Authorized personnel must notify all affected employees prior to beginning lockout /tagout procedures.
 - 3. Shut down machine/equipment using the operator's controls (off button, etc.)
 - 4. Place the energy isolating device into the off or safe position and place your lock on the disconnect. A LOCK MUST BE USED ON A DISCONNECT WHICH HAS LOCKOUT CAPABILITY. Attach to your lock, an approved tag on which you have written your name and department. Tags may only be used when the machine or equipment does not have lockout capability. When tags are used, in addition to informing the affected employees, all other employees who have access to the area will be briefed on the area, machine, and type of hazard tagged out.
 - 5. Verify that isolation has been successful. Work can begin when isolation has been verified.

6. When all work has been completed, notify affected employees that work is complete and reenergization will occur.
 7. Remove your personal lock and/or tag and reconnect the energy source.
 8. Ensure that the machine/equipment is in correct operating condition.
- C. Procedures involving more than one person:
1. If more than one employee is required to lockout/tagout equipment, each shall place his/her own assigned lockout/tagout device on the energy isolating device(s).
 2. When an energy isolating device cannot accept multiple locks, a multiple lockout device may be used.
 3. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a lockout box which allows the use of multiple locks to secure it. Each employee will then use his/her own assigned lock to secure the box.
 4. As each employee no longer needs to maintain his/her lockout protection, that employee will remove his/her lock from the box.
 5. If the authorized employee who applied the lock is not available, locks will only be removed by the Director of Operations.

1.32 Bloodborne Pathogens

OSHA Bloodborne Pathogens Requirements 1910.1030

This section applies to all occupational exposure to blood or other potentially infectious materials as defined by OSHA. "Universal Precautions" shall be observed to prevent contact with blood or other potentially infectious materials. All body fluids shall be considered potentially infectious materials.

District Bloodborne Pathogens Requirements

- A. All District employee, job descriptions do not require them to render emergency medical aid, such as CPR and First Aid, accordingly the District policy shall be as follows:
 1. First line care will consist of calling 911 for medical assistance.
 2. Employees may provide "Good Samaritan" care on a voluntary basis. "Universal Precautions" should be used to protect employees while rendering voluntary first aid.
- B. Appropriate personal protective equipment will be available at the work site.
- C. Employees will use the appropriate disinfecting agents and follow proper disposal procedures for contaminated equipment.

- D. Infectious waste needing disposal shall be placed in a closeable, leak proof container or bag that is marked, color coded or labeled as prescribed by law.
- E. As a minimum, those employees acting as “Good Samaritans” shall protect themselves by wearing the following items:
 1. Disposable gloves of appropriate material and quality so as to provide protection for the employee shall be worn. All emergency response and clean up on all levels require the use of gloves. Donning of gloves must occur before any emergency care is given.
 2. Mask and protective eyewear will be worn where the potential for exposure via mucous membranes, eyes, mouth, and nose is likely to occur by splashes or aerosols.
 3. Hand washing is the single most important means of preventing the spread of infection. After removing gloves, hands and other skin surfaces will be washed thoroughly. Personnel should scrub hands briskly for 2 minutes with warm water and soap. When hand-washing facilities are not available, waterless hand cleaner should be used; however, as soon as facilities are available hands should be washed as described above.
 4. Any clothing that has been spattered with blood and/or body fluids will be removed and cleaned as soon as possible.
- F. An employee acting as a “Good Samaritan” will perform first aid to the degree of training, which they have received. The District will provide training in basic first aid and CPR.
- G. “Universal Precautions” is an approach to limit infection to blood borne pathogens. According to this concept all human blood and body fluids are treated as if they are infected with HIV, HBV, and other bloodborne pathogens.

2.0 TOOLS, HEAVY MACHINERY AND HAZARDOUS OPERATIONS SAFETY

2.01 Tools and Equipment

OSHA Tools and Equipment Requirements, 1910.242 and 1926.300

All hand and power tools and similar equipment, whether furnished by the District or the employee shall be maintained in a safe condition. When power operated tools are designed to accommodate guards, they shall be equipped with such guards when in use. One or more methods of machine guarding shall be provided to protect the operator and other employees in the machine area from hazards, such as those created by point of operation, in going nip points, rotating parts, flying chips and sparks. Examples of guarding methods are barrier guards, two-hand tripping devices, electronic safety devices, etc.

District Tools and Equipment Requirements

- A. Any safety device, tool or equipment that is found unsafe upon first-hand knowledge or inspection by the employee or Supervisor in charge of the job, shall not be used.
- B. All employees shall properly use all tools and safety devices furnished by the District for the purpose intended. The tools and devices will be regularly inspected and/or tested, as required, and kept in good repair by appropriate departments within the District; but this will not relieve the employee of the responsibility of using only tools in good condition with all safety guards in place.

- C. The District and/or employee shall be responsible for the good condition and thorough maintenance of each employee's personal tools.
- D. The air shall be shut off at the air supply valve ahead of the hose before making adjustments or changing air tools, unless equipped with quick-change connectors. The hose shall be bled at the tool before breaking connection.
- E. Grinding machines should be inspected before use. Such inspections should include the end and tongue guards, the work rest and the wheel face.
- F. Employees using explosive-actuated tools shall be properly trained by a qualified instructor.

2.02 Removing Safeguards

OSHA Safeguards Requirements, 1926.300, 1910.212 and 1910.243

When power operated tools are designed to accommodate guards, they shall be equipped with such guards when in use.

District Safeguards Requirements

- A. Safeguards shall not be removed except on approval from the Supervisor for the purpose of testing and maintenance.
- B. When safeguards are removed from apparatus, they shall be replaced before the equipment is returned to service.

2.03 Lights

OSHA Illumination Requirements, 1926.56, and American National Standard A11.1-1965, R1970

Construction areas, ramps, runways, corridors, offices, shops, and storage areas shall be lighted to no less than the minimum illumination intensities listed in Table D-3 of 29 CFR 1926.56. Walking, working, and climbing areas shall be illuminated. Employees shall not be permitted to enter dark holds, compartments, decks or other spaces without a flashlight or other portable light. The use of matches or open flames is prohibited.

District Illumination Requirements

- A. No artificial light, except an approved explosion proof flashlight or an approved explosion proof extension cord and fixture, shall be used near escaping gas, gasoline or other flammable vapors, or when entering a room or enclosure suspected of containing gas or a combustible dust atmosphere.
- B. Dark places such as basements, cellars, etc., on private/customer property, shall not be entered without proper light. The use of matches is strictly forbidden.

2.04 Gasoline

OSHA Flammable and Combustible Materials Requirements 1910.106, and 1926.152

Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids. Approved safety cans or Department of Transportation approved containers shall be used for the handling and use of flammable liquids in quantities of 5 gallons or less. For quantities of one gallon or less, the original container may be used, for storage, use and handling of flammable liquids. Flammable or combustible liquids shall not be stored in areas used for exits, stairways, or normally used for the safe passage of people. No more than 25 gallons of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet. For storage of liquefied petroleum gas, see OSHA 1926.153.

District Gasoline Requirements

- A. Gasoline shall be stored, handled and transported only in approved containers, and extreme care must be used at all times to prevent ignition. In addition, employees shall familiarize themselves with and observe local ordinances relative to such storage.
- B. When pouring or pumping gasoline from one container into another, metal contact (electrically bonding) shall be maintained between the pouring and receiving containers.
- C. Leaky gasoline furnaces or torches shall not be used.
- D. Gasoline shall not be transported inside cabs or trunks of vehicles. This includes all fuel gases such as acetylene, propane, etc.
- E. Gasoline shall not be used for cleaning parts. Approved cleaning solvent shall be used when cleaning parts.
- F. Employees shall not pour gasoline in the carburetor to prime a motor while the engine is being turned over.

2.05 Explosives

OSHA Explosives Requirements 1910.109, and 1926.900

The District shall permit only authorized and Qualified Employees to handle and use explosives.

District Explosives Requirements

The use of explosives is prohibited. For a special situation contact the Safety Manager.

2.06 Fire Protection

OSHA Fire Protection Requirements, 1910.155-.165 and 1926.150-.159

This section contains requirements for fire brigades, and all portable and fixed fire suppression equipment, fire detection systems, and fire or employee alarm systems installed to meet the fire protection requirements of 29 CFR Part 1910.

District Fire protection Requirements

- A. Employees must acquaint themselves with the instructions of the District covering fire prevention and suppression, and with the location and care of all fire-fighting equipment in and about the buildings and premises occupied by the District.

- B. All fire apparatus must be kept in operable condition and kept accessible at all times.
- C. Fire-extinguishing substances, which are conductors of electricity, such as water and acid solutions, shall never be employed in fighting fires near exposed live electrical parts.
- D. Fire extinguishers employing the following non-conductive substances may be used in fighting fires near or on exposed live electrical parts (class C fires): carbon dioxide gas (CO₂), dry powder and halon.

2.07 Compressed Air

- A. Compressed air shall not be used to clean clothing or hair, or to be turned against any employee for any reason.
- B. Vacuums shall be considered as a special type of air machinery and used with the same precautions.

2.08 Compressed Gases

OSHA Compressed Gases Requirements, 1910.101-.105, .110, and .111

The above OSHA regulations cover the requirements for in-house use, storage, labeling, and handling of "Compressed Gases." The regulations cover Compressed Gases regardless of packaging or content.

District Compressed Gases Requirements

- A. To avoid explosions, oil or greases shall not be allowed to come in contact with valves, regulators or any other portion of oxygen cylinders or apparatus.
- B. Portable gas cylinders or containers shall be handled with extreme care and shall be stored in a suitable location. They shall be properly secured in a vertical position with valve cap in place, except when instructions dictate otherwise.
- C. Oxygen and acetylene cylinders or containers shall be handled with extreme care. They shall be stored in safe places, with a minimum of 20' separation, or non-combustible barrier at least 5' high having a fire resistant rating of at least a 1/2 hour, and so stored that they will not be knocked over. Oxygen cylinders or containers shall not be stored with acetylene gas tanks or generators, fuel gases, lubricants and flammable liquids.
- D. Compressed Gas cylinders or containers shall not be exposed to excessive heat or rough handling. Sparks and flames shall always be kept away from such cylinders or containers.
- E. All connections to piping, regulators and other appliances shall be kept tight to prevent leakage. Should leaks develop, never test with an open flame. When cylinders or containers are not in use, always keep valves tightly closed and caps in place.
- F. Compressed Gas cylinders or containers shall always be stored in a well-ventilated location, and as some of the gases are heavier than air (such as butane and propane), particular attention shall be given to venting the lower spaces of the room.

- G. Compressed Gases shall not be used from a cylinder, container or manifold unless an approved automatic pressure-regulating device is installed on the cylinder of the container valve or manifold.
- H. Compressed Gas cylinders or containers should be inspected visually or by other methods to determine reliability and safety of container.
- I. No attempt shall be made to repair a leaky cylinder. Such cylinders shall be removed from service and placed in an open area, away from any possible ignition source. Out-of-service will be marked on the cylinder or tagged and reported to the vendor.
- J. Compressed Gas cylinders shall not be lifted by their valve or protective caps.

2.09 Chemical Handling and Exposure

OSHA Chemical Handling and Exposure 1910.1200, 1926.55, and 1926.55 App A

The purpose of this section is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning their hazards is transmitted to the District and its employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets and employee training. Exposure of employees to inhalation, ingestion, skin absorption, or contact with any material or substance at a concentration above those specified in the "Threshold Limit Values of Airborne Contaminants for 1970" of the American Conference of Governmental Industrial Hygienists, shall be avoided. See Appendix A to section 1926.55 App A.

District Chemical Handling and Exposure

- A. Each employee whose work environment risks exposure to harmful chemicals, hazardous waste or irritants is required to become familiar with that chemical with which he/she is working, either by manufacturer's data as labeled on the container of the product, District publications or written instructions or information furnished by the manufacturer. Precautionary information on labels such as normal handling, emergencies, fire and explosion, health hazards, personal protective equipment and first aid measures shall be noted. Material safety data sheets that accompany the chemical and located in the area where the chemical is used should provide the information specified above.
- B. It is mandatory that all employees, whose duties may risk a hazard by process of environment, utilize protective equipment. These hazards include those of chemical irritants or of mechanical nature encountered in a manner capable of causing injury or impairment to the function of any body part through absorption, inhalation or physical contact. Personal protective equipment, such as shields and other devices for eyes, face, trunk and extremities shall be used.
- C. The personal protective devices furnished shall be maintained in a sanitary and reliable condition and replaced as necessary to insure reliability.
- D. Because of the toxic nature of some chemicals, hazardous waste, vegetation control products, rodenticides, solvents and insecticides and the potential hazards of handling them, it is imperative that extreme care be used at all times. Employees with known allergies to specific chemicals should be extremely cautious in handling that chemical.

- E. Employees shall not handle or eat food, tobacco, etc., with such chemical substance on his/her hands without thoroughly washing.
- F. In handling and storing, all containers shall be labeled or marked with proper identification of contents.
- G. Employees shall also become familiar with the locations of eye wash fountains, emergency showers, and material safety data sheets.
- H. Reasonable safeguards, such as protection against earth tremors, shall be taken in storing hazardous chemicals to prevent injury to persons or property. To prevent fire hazard, do not store containers of strong reducing agents next to containers of strong agents.
- I. First Aid. When accidental contact with acids, caustics or harmful chemicals occurs, the most important factor in preventing permanent injury is speed in treatment. Immediate and prolonged (minimum of fifteen minutes) application of large quantities of running water should be used on any exposed area. Never attempt to neutralize or apply oils or ointments to burned areas. Acid or acoustics in contact with eye should be treated immediately by washing with a steady, gentle stream of water for a minimum of 15 minutes and in all cases shall be treated by a doctor.

2.10 Welding and Cutting

OSHA Welding, Cutting, and Brazing Requirements 1910.251-.255 and 1926.350-.351

Fire hazards. If the object to be welded or cut cannot readily be moved, all movable fire hazards in the vicinity shall be taken to a safe place. Firewatchers shall be required whenever welding or cutting is performed in locations where other than a minor fire might develop, or in the vicinity of "Appreciable Combustible" material that could ignite due to sparks, conduction, or radiation. Selection and specifications of personal protective equipment and proper ventilation of atmosphere is also addressed in this section.

District Welding and Cutting Requirements

- A. General:
 - 1. Respirators, adequate ventilation, or both shall be used during operations that produce toxic fumes.
 - 2. Hard hats or caps shall be worn on all construction sites.
 - 3. Adequate fire prevention measures shall be taken before welding or cutting near or above flammable material or personnel.
 - 4. Welding in the field shall be performed in accordance with local fire prevention regulations.
 - 5. No cutting or welding shall be done in the presence of flammable or explosive mixtures of vapors, gases or dust.
 - 6. Fire extinguishers and a fire watch shall be maintained where a serious fire hazard is present.

7. When welding or cutting on engine driven equipment adjacent to fuel tanks or lines on the equipment, they shall be removed or adequately shielded.
 8. All containers that have held flammable material capable of producing explosive vapors shall be thoroughly purged before welding or cutting them.
- B. Arc (OSHA 1910.254 & 1926.351):
1. During electric welding, suitable eye protection such as hoods, goggles, or screens shall be used to protect personnel.
 2. Welding leads and power cables shall be protected from mechanical damage.
 3. When not welding, electrodes shall be removed from the holder and the holder placed so that electrical contact with persons or objects is prevented.
 4. Welders and welder helpers, when welding or cutting, shall wear shirts having long sleeves buttoned at the cuff. Due to low flammability, shirts made of natural fibers are recommended.
- C. Gas (OSHA 1910.253 & 1926.350):
1. Welding hose shall be easily identified by the use of a color code, and used only for the designated gas. The hose shall be protected against excessive wear or undue physical hazards, such as cuts or burns.
 2. Welding hose shall be protected from contact with flame or hot objects. Care shall be taken to avoid physical damage or excessive strain from pulling.
 3. Cylinder valves shall be closed and hoses purged at the end of the work shift.

Protective caps shall be reinstalled:
 - a. When not in use.
 - b. While being transported.
 4. The purging of hose or equipment shall not be done in a Confined Space.
 5. Torches shall not be placed where accidental contact could release gas.
 6. Torches shall not be hung from regulators.

2.11 Warning Signs, Guards and Barriers

OSHA Signs, Signals, and Barricade Requirements, 1926.200-203

Signs and symbols required by this section shall be visible at all times when work is being performed, and shall be removed or covered promptly when the hazards no longer exist. Barricades for protection of employees shall conform to the portions of the American National Standards Institute D6.1-1971, Manual on Uniform Traffic Control Devices for Streets and Highways, relating to barricades.

District Warning signs, guards and Barriers

- A. Approved warning signs, barriers, guards, flags, work area protection signs and lights at night shall be installed and properly maintained whenever hazards exist due to moving or stationary machinery or vehicles, exposed energized parts, open excavations, construction operations, removal of manhole or handhole covers and similar work. Reasonable inspection of such temporary lighting shall be made to ensure they are lighted and properly maintained.
- B. Such warnings shall be placed immediately at the point of excavations, obstructions or other hazards and, in addition, shall be placed sufficiently far in advance and to the rear as to provide adequate notice or warning to motorists that they are approaching said excavations, obstructions or other hazards. The distance which such advance warning traffic control devices should be placed from the excavations, obstructions or other hazards shall vary according to the conditions. In lower-speed areas they should be closer, and in high-speed areas farther away, in some cases at least 500 feet. Such signs shall be removed as soon as the excavations, obstructions, or other hazards are cleared so as to preclude the motoring public from disregarding the warning of signs because of the absence of the obstructions or hazards which they are left to identify.
- C. Where conditions warrant, an employee shall be stationed at the surface to guard open manholes, pits or vaults.
- D. Flagmen shall be provided when operations are such that signs, signals and barricades do not provide the necessary traffic control.
- E. All open excavations shall be promptly and adequately covered.
- F. Employees shall not cross over or under barrier tape while it is barricading an area unless work in progress requires an employee to temporarily enter such area. In such event he/she shall be continuously watched by another Qualified Employee.

2.12 Flagging

OSHA Flagging Requirements, 1926.201 and .651; ANSI 107-1999 (see Safety Vest in Section #1); Manual on Uniform Traffic Control Devices Part VI (6E- 2 & 3)

When operations are such that signs, signals, and barricades do not provide the necessary protection on or adjacent to a highway or street, flagmen or other appropriate traffic controls shall be provided. Flagmen shall be provided with and shall wear a fluorescent green or orange warning garment while flagging. Warning garments worn at night shall be of reflectorized material. Signaling directions by flagmen shall conform to American National Standards Institute D6.1-1971, Manual on Uniform Traffic Control Devices for Streets and Highways.

Employees exposed to public vehicular traffic shall be provided with, and shall wear, warning vests or other suitable garments marked with or made of reflectorized or high-visibility material.

District Flagging Requirements

- A. The job of being a flagger is an important one. The lives of workmen and those of the traveling public are protected by flagging operations. It is important that employees serving as flaggers be cautious in dealing with the traveling public, yet be brief and to the point in any conversation with the public. Flaggers shall not leave their posts unless properly relieved. All flaggers will follow these instructions:
 - 1. Flagger must be courteous.
 - 2. Flagger must be intelligent.

3. Flagger must be patient.
 4. Flagger, above all, must be in good physical condition (especially hearing and sight).
 5. Flagger shall wear a hard hat at all times.
 6. Flagger shall be fully clothed.
 7. Flagger shall wear orange/fluorescent green jacket, vest or shirt to comply with ANSI standard.
 8. Flagger shall wear full-length pants.
 9. Flagger shall wear a reflectorized hard hat and vest for night flagging operations.
 10. Flagger shall wear work type shoes.
- B. Three (3) orange 16" X 16" flags shall be required per sign.
- C. Signing in advance of flaggers shall consist of three (3) signs at 500+ foot intervals. When feasible the flagger's cars shall be parked at least 100 feet from the flagging station.
- D. All flagging shall conform to the current Department of Safety Manual, Policies and Safety Orders, covering flaggers of the Industrial Commission of Utah.
- E. This signing sequence shall be incorporated into all construction, maintenance and District projects.

2.13 Night-time flagging

Manual on Uniform Traffic Control Devices Part VI (6E-3, 6)(Pages 34-35)

For nighttime conditions similar outside garments shall be reflectorized. The flagger should stand either on the shoulder adjacent to the traffic being controlled or in the barricaded lane. Under no circumstances should the flagger stand in the lane being used by moving traffic.

District Night-time Flagging Requirements

Stand in a safe position on the shoulder facing traffic and wave the red wand flashlight back and forth over head. After the first vehicle has been stopped, move to a position near the centerline so that your signal may be seen by drivers approaching from the rear. The flagging station shall be illuminated and amber flasher light may be placed on advance signs.

2.14 Advance Flagger

Manual on Uniform Traffic Control Devices Part VI (6E-6)(Page 34-35)

Flaggers must be clearly visible to approaching traffic for a distance sufficient to permit proper response by the motorist to the flagging instructions, and to permit traffic to reduce speed before entering the worksite.

District Advance Flagger Requirements

Advanced flaggers are required where there is limited sight distance to the work area. Flaggers are to slow or stop each vehicle as it approaches and, if necessary, give drivers instructions about work being performed ahead, as instructed by the foreman.

2.15 Pilot Car

Manual on Uniform Traffic Control Devices Part VI (6C-5c)(Page 27)

The use of a pilot car for traffic control can be most effective where the route is particularly hazardous, or so involved or frequently altered as to preclude adequate signing.

District Pilot Car Requirements

When the flagger at the opposite end is not visible to you or there is but a single lane open for traffic, a pilot car is then used to escort vehicles through the work area. You are to stop vehicles in the approved manner as they approach and detain them until the pilot car arrives from the opposite direction. All pilot cars should be equipped with signs which identifies them, and which instructs motorists to "Follow Me". When a pilot car is not available, alternating traffic is handled by using a special identified marker that is passed from flagger to the last car to the opposing flagger.

2.16 Flagger Safety Procedures

Manual on Uniform Traffic Control Devices Part VI (6E- 4 & 5)

Section 6E-5, of the Manual on Uniform Traffic Control Devices, describes safe and proper procedures for slowing, stopping, and releasing traffic while flagging.

District Flagger Safety Procedures

- A. To Stop Traffic. Stand in a safe position on the shoulder facing the traffic. The Stop sign should be in the right hand. Look directly at the approaching driver, and with the free arm upraised and the palm of the hand exposed to the driver, bring him to a stop. After the first vehicle has been stopped, move to a conspicuous position near the centerline so as to be readily seen by the drivers approaching from the rear. Do not stand directly in front of the first car. Remain in this position with the Stop sign displayed until it becomes time to permit traffic to pass through the work area, then move to the shoulder of the road to release the traffic.
- B. To Release Traffic. While standing on the right of the traffic that has been stopped, the flagger's position being on the shoulder of the road, show the Slow sign to stopped vehicles. Then motion them forward with the left hand.
- C. Where it is desired to alert or slow traffic, hold Slow sign in right hand and motion with left hand using downward sweeping motion.

2.17 Use of Safety Devices

All safety devices furnished by the District shall be properly used by all employees as required. These devices will be regularly inspected as required and kept in good repair by the District, but this will not relieve the employee of the responsibility of using only those devices that are clean and in good working condition.

2.18 Fall Protection Systems Criteria and Practices.

OSHA Fall Protection Systems Criteria and Practices, 1926.502 and 1910.66(j)

The District shall provide and install all fall protection systems required by this section for an employee, and shall comply with all other pertinent requirements of this section, before employee begins the work that necessitates the fall protection. Guardrail systems and their use shall comply with the following provisions: Top edge height of top rails, or equivalent guardrail system members, shall be 42 inches (1.1 m) plus or minus 3 inches (8 cm) above the walking/working level. Safety net systems and their use shall comply with the following provisions: Safety nets shall be installed as close as practicable under the walking/working surface on which employees are working, but in no case more than 30 feet (9.1 m) below such level. When nets are used on bridges, the potential fall area from the walking/working surface to the net shall be unobstructed. Personal fall arrest systems and their use shall comply with the provisions set forth in section D of OSHA 1926.502. Employees on working platforms shall be protected by a personal fall arrest system meeting the requirements of appendix C, Section I, of OSHA 1910.66.

District Full Body Harness, Lifelines, and Railings Requirements

- A. Employees shall use approved full body harness and straps, lifelines, or other adequate protection when working more than 4' above the ground unless adequate railings are provided.
- B. It shall be the duty of each employee to inspect each safety device each time it is used, whether or not furnished by the District, and only use those that are in good condition.
- C. No employee shall be elevated in an aerial bucket or work platform without a safety strap or lanyard not exceeding 6' in length.
- D. Employees shall visually make sure that the snap hook is properly engaged with snaps facing to the outside, in the "D" ring before the weight of the body is placed on the safety strap. When the strap is in use, both snap hooks shall not be attached to the same "D" ring.
- E. Wire hooks shall not be used on a full body harness.
- F. When working over or near water and the danger of drowning exists:
 - 1. Employees shall wear U.S. Coast Guard approved life jackets or buoyant work vests.
 - 2. Ring buoys with at least 90 feet of line shall be immediately available.
 - 3. At least one life saving skiff shall be immediately available.
- G. Lifelines shall be of approved material and not less than the equivalent strength of 1/2-inch manila rope and durability.

2.19 Safe Suspension Supports

OSHA Suspension Requirements, 1926.451

Except as provided herein, each scaffold and scaffold component shall be capable of supporting, without failure, its own weight and at least 4 times the maximum intended load applied or transmitted to it. All suspension scaffold support devices, such as outrigger beams, cornice hooks, parapet clamps, and similar devices, shall rest on surfaces capable of supporting at least 4 times the load imposed on them by the scaffold operating at the rated load of the hoist (or at least 1.5 times the load imposed on them by the scaffold at the stall capacity of the hoist, whichever is greater).

In addition to wearing hard hats, each employee on a scaffold shall be provided with additional protection from falling hand tools, debris, and other small objects through the installation of toeboards, screens, or guardrail systems, or through the erection of debris nets, catch platforms, or canopy structures that contain or deflect the falling objects.

District Suspension Supports Requirements

- A. No employee or any material or equipment shall be suspended or permitted to be supported on any portion of a tree, pole structure, scaffold, ladder, walkway or other elevated structure, crane, or derrick, etc., without it first being determined that such support is adequately strong and properly secured in place.
- B. Scaffolding must be of sufficient strength and rigidity to support four times the weight of men and material to which it will be subjected.
- C. Construction details of all scaffolding shall comply with such State and Federal safety regulations as are applicable.
- D. All scaffolds shall be equipped with railings and toe boards when 10' or more above the ground.

2.20 Forklift

OSHA Fork-lift Requirements, 1910.178 and 1926.602(c)

This section contains safety requirements relating to fire protection, design, maintenance, and use of fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines. The District shall ensure that each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of the training and evaluation specified.

District Fork-lift Requirements

- A. Forklifts shall be operated by qualified and authorized employees only.
- B. Riding (horizontal movement) on forklift shall be restricted to the driver only. No one shall be permitted to ride on the load at any time.
- C. When forklifts are used for scaffolding work, a safety platform with guardrails secured to the forks shall be used and the same precautions taken as for other scaffolding.
- D. Operators shall not engage in racing or other activity that will cause the forklift to be driven at excessive speed.
- E. A forklift shall not be driven close to anyone standing in front of a fixed object where he/she might be pinned. When backing up, the operator must look to the rear to be sure pedestrians are clear.
- F. Any hazardous area with flammable dust or vapor shall not be entered unless the forklift is approved for such use.
- G. Engines shall not be idled for long periods in semi-closed or enclosed areas.

- H. When leaving a fork-lift unattended (unattended is defined as the operator being more than 25' from fork-lift), the load engaging means shall be fully lowered, the controls neutralized, power shut off, brakes set and key removed. Wheels shall be blocked if the forklift is parked on an incline.
- I. No employee shall be permitted to stand or pass under the elevated portion of any forklift, whether loaded or empty.
- J. No industrial forklift shall be used in excess of its rated capacity.

2.21 Ladders

OSHA Ladder Requirements, 1926.1053 and 1910.25-27

The above OSHA standards give requirements for the use, construction, material, and care of ladders.

District Ladder Requirements

- A. Ladders shall conform to ANSI A14.1-1982 [2], ANSI A14.2-1982 [3], ANSI A14.3-1984 [4] or ANSI A14.5-1982 [5].
- B. When working from a portable ladder, the ladder must be securely placed, held, tied or otherwise made secure to prevent slipping or falling.
- C. Care shall be used in placing ladders. The bottom of the ladder should be away from the wall, never more than one-fourth of the vertical height of the ladder.
- D. Ladders shall not be placed in front of doors opening toward the ladder unless the door is open, locked or guarded.
- E. The employee shall face the ladder when ascending or descending and shall use both hands.
- F. When standing on a ladder, the employee shall not lean to one side while working unless the ladder is secured.
- G. Employees shall not stand on the top platform of stepladders.
- H. Ladders with weakened, broken or missing steps, broken side rails, or otherwise in a defective condition shall not be used. Repairs by nails or longitudinal reinforcements are prohibited on ladders.
- I. All portable ladders shall be equipped with no-slip bases. However, care shall be exercised in placing and blocking, lashing or having the ladder held by someone, especially upon oil, metal or concrete surfaces.
- J. Portable metal ladders shall not be used in the construction or maintenance of electrical circuits.
- K. Ladders shall be maintained in good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached and the moveable parts shall operate freely without binding or undue play.

- L. Ladders carried on vehicles should be adequately supported to avoid sagging and securely fastened in position to minimize chafing and the effects of road shocks.
- M. Ladders shall be inspected frequently, and those which have developed defects shall be withdrawn from service for repair or destruction and tagged or marked as "Dangerous, Do Not Use".
- N. Only approved ladders owned by the District shall be used by employees.
- O. Employees shall not work from the top step of a straight ladder. A minimum of 3' shall extend above the landing or foothold.
- P. While an employee is working on a stepladder at a point 10 feet or more above the ground or floor, the ladder shall be held by at least one other person, or secured.
- Q. Stepladder legs shall be fully spread when ladder is in use.
- R. Stepladders shall not be used as straight ladders.
- S. When a fixed ladder has a climbing length of over 24', one of the following safety devices shall be used: self-retracting lifelines and rest platforms with no greater than 150' between platforms, and cage or well with multiple ladder sections not greater than 50'. A safety device shall still be utilized when fixed ladders have a climbing length of less than 24', while retaining an overall height greater than 24'.

2.22 Material Handling and Lifting

OSHA Material Handling and Lifting Requirements 1910.176, 1926.250, and 1926.251

These requirements are for the safe lifting, storage, housekeeping, and use of mechanical equipment in material handling.

District Requirements for Material Handling and Lifting

- A. The right way to lift is easiest and safest. Take a firm grip, secure good footing, place the feet a comfortable distance apart, bend the knees, keep the back straight and lift with the leg muscles.
- B. Secure help when needed. Use cranes, hoists, handcarts, etc. for lifting heavy loads if necessary. Do not stand or pass under loads that are suspended by ropes, chains or cables. Confirm that the rope, chain, or cable is capable of lifting the intended load.
- C. Gloves or hand pads are required when handling rough or heavy materials.
- D. Employees should never carry a load that is so large that it will obstructs their view.
- E. When two or more persons are carrying one object, each employee, if possible should face the direction in which the object is being carried.
- F. When two or more persons carry a heavy object that is to be lowered or dropped, there shall be a prearranged signal when all are to let go.
- G. Make sure that the pathway is clear and unobstructed before moving materials.

- H. Secure all stacks or storage of materials so that they do not pose a hazard. This would include orderly stacking, limiting the height of a stack, and blocking.

2.23 Loading and Unloading Material Safely

- A. Nail points, ends of loop or tie wires, etc., shall not be left exposed when packing and unpacking boxes, crates, barrels, etc.
- B. Nails shall be removed from loose lumber or the points shall be bend down. All such nails and lumber shall be disposed of in a location where they will not become a hazard.
- C. Sharp or pointed articles shall be so stored as to prevent a person from coming in contact with the sharp edges and points.
- D. Care shall be exercised when packing or unpacking glassware, porcelain and other fragile objects that have sharp edges when broken.
- E. Loads shall not be handled from the street side of a vehicle if it can be avoided.
- F. Special care and instructions governing the loading and unloading of transformers, poles, pipes, bulky materials, etc., shall be strictly observed in every case.
- G. No materials or tools shall be carried on the shoulder when working around energized equipment. Long material, including lumber, shall be carried in a horizontal position. Caution shall be exercised to prevent any material or tools from accidentally contacting energized conductors or equipment.

2.24 Cranes, Hoists and Derricks

OSHA Cranes, Hoist, and Derricks Requirements, 1910.179-.181 and 1926.550

This section applies to cranes and derricks and to any other type of equipment performing the functions of a crane or derrick. Use of equipment should follow the manufacture's limitations and specifications. Equipment should only be used by trained personnel.

District Cranes, Hoist, and Derricks Requirements

- A. Only qualified and authorized persons shall operate cranes, hoists, and derricks.
- B. Employees shall not ride on loads.
- C. Rated load capacities and recommended operating speeds, special hazard warnings or instructions shall be followed. The crane shall not be loaded beyond its rated capacity or safe workload.
- D. The operator shall inspect all machinery and equipment prior to each use and during use, to make sure it is in safe operating condition. Any deficiencies shall be repaired or defective parts replaced before continued use.
- E. No employees shall be under a suspended load, inside the angle or winch line, nor shall any employee stand or work near a cable, chain or rope under tension unless the nature of work requires it. Winch lines, ropes, and wires shall not be guided by hand when standing within reach of the drum or sheave.

- F. Operators shall not carry or move loads over heads of workmen or others. Operators shall never leave crane, hoist or derrick while load is suspended.
- G. Crane, hoist, or derrick operators shall take signals from one person only during operations (except a stop signal). Only Qualified Employees shall give signals. No one shall give signals except employees who are specifically designated and authorized by the employee in charge of the work.
- H. Uniform standard signals shall be used to signal the crane operator. A chart shall be conspicuously posted in the vicinity of hoisting operations (cage or cab if crane has one), depicting and explaining the system of signals used.
- I. When two or more cranes are used to lift a load, one qualified responsible person shall be in charge of the operation. He/she shall analyze the operation and instruct all personnel involved in the proper positioning and rigging of the load, and any movements to be made.
- J. Outdoor portable cranes, hoists and derricks shall be positioned, equipped, protected and/or operated so that no part comes closer to energized power lines than 10 feet. (Utah Crane Law)

Minimum Required Clearance Feet

1000 - 50,000 Volts 10'

Any questions, please contact the District Supervisor before the job begins.

- K. Booms on mobile cranes, derricks, and man-lifts shall be in the stored position when the chassis is moving.
- L. These clearances do not apply to such equipment when used for authorized work on overhead or underground conductors, structures or appurtenances when supervised by a qualified electrical worker.
- M. A warning bell shall be sounded when overhead traveling and gantry cranes are in motion or loads are being moved overhead.
- N. Rigging equipment shall be carefully inspected before and after use. Defective equipment shall be repaired or discarded immediately.

2.25 Aerial-Lift Equipment

OSHA Aerial-Lift Requirements, 1926.453 and 1910.67

Unless otherwise provided in this section, aerial lifts acquired for use on or after January 22, 1973 shall be designed and constructed in conformance with the applicable requirements of the American National Standards for "Vehicle Mounted Elevating and Rotating Work Platforms," ANSI A92.2-1969, including appendix. Aerial lifts acquired before January 22, 1973 which do not meet the requirements of ANSI A92.2-1969, may not be used after January 1, 1976, unless they shall have been modified so as to conform with the applicable design and construction requirements of ANSI A92.2-1969. Aerial lifts include the following types of vehicle-mounted aerial devices used to elevate personnel to job-sites above ground: Extensible boom platforms; Aerial ladders, Articulating boom platforms, Vertical towers, and A combination of any such devices. Aerial equipment may be made of metal, wood, fiberglass reinforced plastic (FRP), or other material;

may be powered or manually operated; and are deemed to be aerial lifts whether or not they are capable of rotating about a substantially vertical axis. Safety requirements for aerial-lift equipment are contained within this section.

District Requirements

- A. Only trained and authorized persons shall operate aerial equipment, including booms, cranes, and derricks.
- B. Drivers of aerial lift trucks, when driving under structures or objects involving overhead clearance shall be constantly alert to the fact that the vehicle has exposed equipment above the cab.
- C. Any backing of the truck shall be done slowly and under the direction of one person on the ground that has an unobstructed view of the intended path of the vehicle and its driver.
- D. Upon arriving at the work area, the truck shall be legally parked while the appropriate vehicle and pedestrian warning signs, lights, barricades, and traffic cones are being placed.
- E. When working on an inclined road or street, check outrigger to make sure a stable set-up is arranged. The truck shall sit approximately level as viewed from the rear. The boom must be pointed uphill beyond the center of the truck. Wheel chocks shall be used when parked on an incline. When the outriggers are extended and set, the truck tires should not support the weight of the truck.
- F. Every attempt shall be made to place the truck so that all work areas at the location may be reached by the boom without additional movement of the truck.
- G. The operator shall follow the proper sequence prescribed by the manufacturer in raising and lowering the boom sections.
- H. The operator shall note all obstructions so that the boom can be raised, lowered or rotated without danger of striking any of said obstructions.
- I. When the boom is to be maneuvered over a street or highway, necessary precautions shall be taken to provide adequate safe clearance for traffic and pedestrians.
- J. Before lowering the outriggers, the operator shall be certain there is no one in a position where injury may occur. When so equipped, outriggers shall be locked down.
- K. Only approved attachments shall be allowed on the aerial baskets.
- L. Employees shall not belt on to an adjacent pole, structure, or equipment while performing work from an aerial basket.
- M. The boom and bucket or ladder shall be secured in the lower travel position by a locking device before the truck is moved for highway travel.
- N. Lift controls shall be tested prior to each day's use.
- O. Employees shall stand on the floor of the bucket or ladder and wear a class III harness and lanyard attachment to the boom.
- P. Boom load limits specified by the manufacturer shall not be exceeded.

- Q. When positioning outriggers, they shall be on pads or a solid surface before the aerial device is utilized.
- R. An aerial-lift truck shall not be moved with men in the bucket or ladder or when the boom is elevated.
- S. Articulating booms and extended boom platforms, primarily designated as personnel carriers, shall have upper and lower controls and the lower controls must be capable of overriding the upper controls in the event of an emergency.
- T. When working near energized lines or equipment, the aerial lift shall be grounded or barricaded and tested before the work can be performed.

2.26 Stairways, Doors, Landings, Halls

- A. Care shall be used when passing through swinging doors. Employees shall use extreme care in opening and closing doors with glass panels.
- B. Employees shall keep to the right when using the hallways and when going around corners.
- C. Handrails should be used when ascending or descending stairs. Most common falls or strains occur because of inattention such as when a person is talking, laughing or turning to friends while going downstairs. This is discouraged.
- D. Materials such as pencils, paper clips, rubber bands, paper, etc, shall not be discarded on floors, landings, or stairs. Proper receptacles shall be used. Care shall be taken to wipe up spilled liquids quickly.
- E. Employees shall not run up and down stairways or around corners. Handrails are provided and should be used when possible.

2.27 Office and Clerical Safety / Ergonomics

- A. Chairs, wastebaskets, cords and other articles shall not be left in aisles or where they constitute a tripping hazard.
- B. Desk drawers, cabinet doors, slides, and files shall not be left standing open.
- C. Broken glass or other sharp-edged objects shall not be placed in wastebaskets unless properly protected.
- D. Approved type ladders, step stools, or other safe supports shall be used to reach material on high shelves or at other elevations.
- E. Care shall be taken when using portable electrical equipment and hand tools such as heaters, electric pencil sharpeners, typewriters, lamps, etc., to ensure their safe operations. All defective equipment shall be removed from service and/or repaired. Electrical outlets shall not be overloaded with multiple appliances.
- F. Where microwave ovens are used, care must be exercised for persons with pacemaker heart units who may get too close to the microwave oven. All repairs to microwave ovens should be performed by the manufacturer's repairmen.

- G. When reaching, twisting, or bending down, sudden or awkward movements should be avoided.
- H. The District will address all ergonomic issues on a case-by-case basis. The affected employee, immediate Supervisor, and Safety Manager will evaluate each case.

2.28 Hazardous Communication

OSHA Hazardous Communication Requirements 1910.1200

The purpose of this section is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning their hazards is transmitted to the District and its employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets and employee training.

District Hazardous Communication Requirements

- A. All employees handling acids, caustics or harmful chemicals shall be instructed with regard to hazardous properties, proper protective clothing and safe handling procedures.
- B. Protective equipment. When working with acids, caustics or harmful chemicals, the use of face shields or goggles and rubber gloves shall be considered as minimum protective equipment.
- C. Every container should be properly marked and labeled with the identity of the hazardous chemical, appropriate hazard warnings, and name and address of the chemical manufacturer.
- D. Safety data sheet (SDS) will be present upon receiving any hazardous materials.

Upon receiving a new SDS, copies should be taken to the following locations:

1. areas where the material is being used,
2. areas where the material is stored,
3. and in the District Safety Department.

If an SDS does not accompany the shipment of the hazardous materials, it is the responsibility of the employee receiving the hazardous material to obtain the appropriate SDS.

- E. Each employee shall be familiar with the location and availability of SDS and the "Hazardous Communication Program". Also, each employee shall be aware of the hazardous materials used in their departments and where they are being used. Employees shall know the proper measures to protect themselves against chemical hazards.
- F. Contractors working for the District are responsible for informing their employees of the risk associated with the hazardous materials they are using. Contractors shall supply the District Safety Department with the SDS for the materials they are using while working for the District.

2.29 Excavation, Trenching, and Shoring

OSHA Excavation, Trenching, & Shoring Requirements, 1926.650-.652 and 1926 Subpart P

This section applies to all open excavations made in the earth's surface. Excavations are defined to include trenches. The estimated location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be determined prior to opening an excavation. Each employee in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with OSHA regulations except when: excavations are made entirely in stable rock; or excavations are less than 5 feet (1.52 m) in depth and examination of the ground by a competent person provides no indication of a potential cave-in.

District Excavation, Trenching, and Shoring Requirements

- A. Prior to opening an excavation, efforts shall be made to determine whether underground installations, (i.e., sewer, telephones, water, gas, electric lines, etc.), will be encountered and, if so, where such underground installations are located. On all excavations, BLUE-STAKE will be notified before beginning. When the excavation approaches the estimated location of such an installation, the exact location shall be determined and when it is uncovered, proper supports shall be provided for the existing installation. Other affected utility companies shall be contacted and advised of proposed work prior to the start of actual excavation.
- B. All employees shall be protected with personal protective equipment for the protection of the head, eyes, respiratory organs, hands, feet, and other parts of the body as appropriate.
- C. Employees exposed to vehicular traffic (outside barricaded work areas) shall wear warning vests marked with or made of reflectorized or high visibility material and/or approved high visibility clothing.
- D. Employees subjected to hazardous dusts, gases, fumes, mists, or atmospheres deficient in oxygen shall wear approved respiratory protection.
- E. In order to protect the public, walkways, driveways, and sidewalks shall be kept clear of excavated material or other obstructions. Open holes shall be barricaded or covered with proper warning devices in place.
- F. Inspections of excavations shall be made by a qualified person. If evidence of possible cave-ins or slides is apparent, all work in the excavation shall cease until the necessary precautions have been taken to safeguard the employees.
- G. Materials shall be effectively stored and retained at least two feet or more from the edge of excavations in which employees may be required to enter. Barriers or other efficient retaining devices may be used in order to prevent excavated or other materials from falling into the excavation.
- H. Air in excavations shall be tested in locations where oxygen deficiency or gaseous conditions are suspected. When flammable gases are present, adequate ventilation shall be provided and/or sources of ignition shall be eliminated. Attended emergency rescue equipment, such as breathing apparatus, a safety line, fire extinguisher, etc., shall be readily available where adverse atmospheric conditions may exist or develop in an excavation.
- I. Walkways or bridges with standard guardrails shall be provided where employees or equipment are required or permitted to cross over excavations 18" or more in depth.

- J. Sides of trenches 5 feet or more in depth, shall be shored, sheeted, braced, or otherwise supported by means of sufficient strength to protect the employees working within them. In lieu of shoring, the sides of the trenches may be sloped to preclude collapse, but shall not be steeper than a one-foot rise to each half-foot horizontal.
- K. When employees are required to be in trenches four feet deep or more, an adequate means of exit such as a ladder or steps shall be provided and located so as to require no more than 25 feet of lateral travel.
- L. Employees entering shafts or deep holes shall be protected by the installation of a removable-type casing or shoring of sufficient strength to resist shifting of the surrounding earth. Such temporary protection shall be provided for the full depth of that part of the shaft or hole. A lifeline, suitable for instant rescue and securely fastened to a shoulder harness, shall be worn by each employee entering shafts or deep holes.
- M. All holes, trenches, or excavations shall be guarded or covered in a manner that protects the public and employees.
- N. Employees shall stay in the clear of mechanical hole digging equipment or revolving augers.
- O. In trenches less than 5 feet in depth employees shall evaluate the soil type and other conditions to determine if shoring or shielding is needed.

2.30 Pole/Pipe Handling

- A. The term "Pole/Pipe Handling" includes the loading and unloading of transporting equipment in places or storage and the transportation and unloading of poles/pipe in the field. It does not include setting, removing, etc., which are treated separately.
- B. Pole/Pipe Handling methods shall follow a set procedure and each phase of each operation shall follow in its proper sequence.
- C. Only methods, tools, and equipment approved by the Supervisor shall be used in Pole/Pipe Handling operations.
- D. Employees shall not stand or pass under a suspended load.
- E. Employees and equipment shall be placed so as to minimize the danger of injury or damage should a pole or poles become unstable or unwieldy.
- F. Employees engaged in handling poles/pipe shall wear suitable gloves and shall wear a shirt or jacket with the sleeves rolled down.
- G. Only employees who are specifically designated and authorized shall give signals.
- H. Hoisting equipment operators shall accept signals only from employees specifically designated and authorized (except a stop signal).
- I. Poles/pipe shall be stored to make the pile stable, having each pile securely chocked or tied to prevent rolling.

3.0 TRAFFIC AND MOTOR VEHICLE OPERATION

3.01 Administrative Policy

District vehicles are a familiar sight to District customers. If District drivers are courteous and considerate, the District will be judged to be the same. The customers the District serves are generally the other vehicle operators which District drivers encounter on the street. Be courteous to them. The policies contained in this section shall apply whenever an employee is operating a District-owned motor vehicle, when operating a privately-owned motor vehicle under contract to the District, or whenever the employee is being compensated for use of a vehicle on a mileage or salary basis by the District. The purpose of these policies is to assist in avoiding traffic and equipment accidents by developing careful and courteous driving practices.

3.02 Knowledge and Compliance with Laws

Drivers of District vehicles shall be familiar with and obey the "Traffic Code," UCA Title 41, Chapter 6a, as amended, local traffic policies and ordinances, and all District policies and regulations governing vehicle operations. The omission of any of the State Vehicle Code provisions from these policies does not relieve the driver of responsibility for complying with applicable Traffic Code provisions.

3.03 License and Permits

- A. Drivers of vehicles shall have in their possession a valid operators or commercial drivers license with a current medical card, as required by the "Motor Vehicle Act," UCA Title 41, Chapter 1a, or successor law.
- B. Performance tests, as might be required or necessary, shall be given for special equipment.
- C. Relief drivers shall be designated and trained as replacements for regular drivers during vacation, sickness, etc. Their qualifications shall meet those stated for a regular driver.
- D. Special permits from the proper governmental agency must be obtained before any load is moved upon the road or highway when said load exceeds the normal limits with respect to weight, length, width, or height. The driver of the vehicle shall understand and abide by the conditions of the special permit. A copy of the permit shall be carried on the vehicle to which it refers and shall be available to any authorized agent or official.

3.04 Defensive Driving

- A. Employees are urged to practice defensive driving at all times. Avoid accidents by anticipating that someone may step from between parked cars, that a car may pull out from the curb without warning, or that the driver ahead may turn or stop suddenly.
- B. Employees shall drive courteously at all times and shall yield the right-of-way to other vehicles when appropriate. If there is any question as to whether the other vehicle has the right-of-way, yield the right-of-way to that vehicle.

3.05 Speed Laws

- A. Drivers of vehicles shall comply with the posted speed limits at all times.
- B. These limits are specific speeds established by the Traffic Code and local ordinances for certain situations such as school zones, business and residential districts, and other specialized zones established by the posted speed limit signs. This also applies to open

highway when speed limits are established by the Traffic Code or local ordinance and posted.

3.06 Physical Condition of Driver

No drivers shall drive a District vehicle while physical conditions are such as to impair normal judgment and ability.

3.07 Unauthorized Drivers

No persons shall be allowed to drive District vehicles unless they are an employee of the District and authorized to use the vehicle. This rule shall apply to family members and friends of employees in charge of District vehicles.

3.08 Alcoholic Beverages and Controlled Substances

Driving while intoxicated or under the influence of drugs is a misdemeanor in the eyes of the law and will be grounds for discipline up to and including immediate termination. In the event of an accident, the employee driver shall be drug tested in accordance with District policy.

3.09 Safe Operations

- A. Drivers shall not operate vehicles with inadequate brakes, faulty steering gear, horn, lights, etc., except to proceed to a place where repairs can be made, and then only at such reduced speed or in such manner as will enable the movement to be made safely.
- B. When known, mechanical defects shall be reported to the Supervisor immediately.

3.10 Vehicle Safety Inspection (Pre-trip Inspection)

- A. All District vehicles in use shall be checked at the beginning of each shift to assure that the following parts, equipment and accessories are in safe operating condition and free of apparent damage that could cause failure while in use:
 - 1. Service brakes, including trailer brake connections.
 - 2. Parking system (hand brake).
 - 3. Emergency stopping mechanism.
 - 4. Coupling devices.
 - 5. Seat belts.
 - 6. Operating controls.
 - 7. Safety devices.
- B. All defects shall be corrected before the District vehicle is placed in service.
- C. These requirements also apply to equipment such as lights, reflectors, windshield wipers, first aid kits, fire extinguishers, etc., where such equipment is necessary.

3.11 Movement of Vehicles

- A. Before starting to move a vehicle, either forward or backward, the driver shall determine that no person or object is in the path of the vehicle. This shall be done by:

1. Personal inspection if alone.
 2. Using a flagman if available.
- B. Extraordinary precautions shall be taken when driving motor vehicles near children.

3.12 Backing

- A. Backing into streets or roadways is prohibited except when impractical to proceed by other means. Extreme caution shall be used under these circumstances and flagmen used if available.
- B. No vehicle equipment shall be operated having an obstructed view to the rear unless:
1. The vehicle has a reverse signal alarm audible above the surrounding noise level; or
 2. The vehicle is backed up only when observer signals that it is safe to do so.
- C. All bi-directional machines, such as hysters, front end loaders, trenchers, and similar equipment, shall have in operation a reverse signal alarm distinguishable from the surrounding noise level or an employee signaling that it is safe to back-up.

3.13 Transporting Employees

- A. Employees shall ride within the body of the vehicle in firmly secured seats that are provided with seat belts. Under no circumstances shall employees ride on fenders, running boards, tailgates, side rails, or tops of vehicle.
- B. All sharp tools, such as saws, chisels, axes, knives, etc., carried on vehicles shall be so stored or guarded to prevent injury to workmen.
- C. Before proceeding, employee drivers shall make certain that all loads are properly secured and that, employees are so placed as to preclude being exposed to hazards from shifting loads, and employees are riding in the seats provided.
- D. Employee drivers shall not permit boarding or alighting from vehicles, which they are operating while such vehicles are in motion.
- E. No passenger in a vehicle shall ride in such a position as to interfere with the driver's view ahead or to the sides, or to interfere with control over the driving mechanism of the vehicle.
- F. Drivers or passengers shall not throw trash, waste paper, any burning material, or other objects from vehicles.

3.14 Seat Belts

When driving or riding in District vehicles, employees shall be secured in seat belts at all times.

3.15 Parking

- A. Park parallel, close to the curb or edge of the road, unless signs or pavement markings indicate angle parking. Turn on the emergency flashers unless legally parked off the highway.
- B. Never park on the paved or traveled part of any highway outside of a business or residential district when it is possible to pull off the road.
- C. If you have to make an emergency stop, get all four wheels off the hard surface. Turn on the emergency flashers and place warning devices.
- D. Never park on a hill or curve unless it is impossible to move the vehicle. Take all emergency precautions available to warn other motorists.
- E. If you park on a hill, wheels shall be chocked.

3.16 Coasting Prohibited

District vehicles must be operated in gear while in motion. Coasting on the highway and especially on a downgrade is prohibited.

3.17 Approach of Emergency Vehicles

Drivers shall yield the right-of-way to all emergency vehicles when they are approaching with red lights and/or siren in operation. District vehicles will proceed immediately to a position parallel to, and as close as possible to the right-hand edge of the roadway and shall stop and remain in such position until the emergency vehicle has passed.

3.18 Truck and Heavy Equipment Operation

- A. Vehicles shall be loaded properly. The driver's view shall not be obstructed. Loads shall be properly fastened with ropes or binders. Material transported on the same truck with workmen shall be secured to prevent shifting.
- B. Vehicles shall be kept free from accumulation of materials that constitute hazards from tripping, obstructions, or fires. Sufficient clearance shall be allowed for access to material and tools. All surfaces shall be kept free from protruding nails or bolts, splinters, loose boards, and unnecessary holes or openings.
- C. Good housekeeping shall be maintained at frequent and regular intervals. All sweepings, solid or liquid waste, refuse and garbage shall be removed and disposed of in proper receptacles as often as necessary or appropriate to maintain equipment in a sanitary condition.
- D. A common drinking cup or other similar utensils are prohibited.
- E. When winches on trucks or tractors are used to raise or lower poles or material, pull in wire, etc., the operator shall not leave the controls while the winch is in operation or is being used to hold a load.

- F. Drivers of District trucks and other vehicles equipped with booms or derricks, truck mounted ladders, mechanical or hydraulic lifts, hole diggers, or similar equipment shall not drive with such equipment in an elevated or partially elevated position.
- G. Proper precautions shall be taken at all times to prevent contact with overhead lines, trees, or structures.
- H. Safety chains will be used on all trailed equipment except semi-trailers coupled with a standard fifth wheel.
- I. All haulage vehicles, whose payload is loaded by means of cranes, power shoves, loaders, or similar equipment, shall have a cab shield and/or canopy adequate to protect the operator from shifting or falling materials.
- J. Whenever the equipment is parked, the parking brake shall be set. Equipment parked on inclines shall have the wheels chocked and the parking brake set. Emergency flashers will be activated when necessary.
- K. No modifications or additions, which affect the capacity or safe operation of the equipment, shall be made without manufacturer's written approval. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly. In no case shall the original safety factor of the equipment be reduced.
- L. Display of Red Lights, Flags on Loads. The driver of every vehicle operating a half hour after sunset to a half hour before sunrise and carrying a load extending four feet or more beyond the end of the vehicle, shall attached at the end of the load two red lights plainly visible under normal atmospheric conditions from a distance of not less than 500 feet from the rear and sides. At any other time the driver shall attach at the extreme end of such load a red flag or cloth at least 16 inches square.
- M. All equipment left unattended at night adjacent to a highway in normal use, or adjacent to construction area where work is in progress, shall have appropriate lights or reflectors or barricades equipped with appropriate lights or reflectors to identify the location of the equipment.
- N. Heavy machinery, equipment or parts thereof which are suspended or held aloft by use of a sling, hoists, or jacks shall be substantially blocked or cribbed to prevent falling or shifting before employees are permitted to work under or between them. Bulldozer and scraper blades, end-loader buckets, and similar equipment shall be either fully lowered or locked when being repaired or when not in use. All controls shall be in a neutral position with the motors stopped and brakes set, unless work being performed requires otherwise and then only when other suitable precautions are installed.
- O. When driving vehicles or equipment under the speed limit in a manner that may impede traffic flow, the emergency flashers will be set to warn on-coming traffic.