Town of Grand Lake Safety Manual

Approved on 02/24/2025

TABLE OF CONTENTS

* Colored Page sections do not contain safety rules, but are informational only. These sections serve as guidelines for training requirements of OSHA confined space and Hazard Communication programs.

POLICY STATEMENT

Accidents and injuries to Town employees should deeply concern us all. These accidents cause untold suffering and financial loss to our employees and their families. The time lost from jobs, medical expenses and compensation payments drain tax dollars away from much needed services and programs. This loss must be kept to an absolute minimum.

The Town recognizes its obligation to provide the safest possible working conditions for its employees; and, in the event of an accident, prompt first aid and medical care to minimize personal injuries. This requires that employees be provided proper safety equipment and job instruction, that their work practices be frequently reviewed, and most important, that their work performance be properly supervised.

Because of the suffering, financial loss and hardships employee injuries cause to families, safety is of prime importance to every employee. Each employee must follow safe practices and obey safety rules.

Safety is a management responsibility. Department heads and supervisors must aggressively support the Safety Program. Management and supervisory personnel are responsible for the actions of their employees.

Accident prevention and efficient production go hand in hand. All employees, supervisors and managers must work continuously to promote safe practices and maintain property and equipment in safe operating condition.

For these reasons, every employee will be held accountable to the safety practices contained in this manual.

~~Shane Hale~~Stephan Kudron, Town Manager

STATEMENT OF EMPLOYEE RESPONSIBILITY

It is the responsibility of each employee working for the Town of Grand Lake to make themselves aware of all ~~rules~~the rules and regulations that apply. ~~—~~Employees are encouraged to ask their supervisor if they are not sure of the manner in which a task is to be completed. Grand Lake Town Management desires to provide a safe and healthy workplace. It is the responsibility of each employee to work safely, and to comply with these safe work practices.

GENERAL SAFETY RULES

1. Employees shall be in a physical and mental condition to conduct normal working activities. ~~The use of prescription medications shall be reported to your supervisor.~~Notify your supervisor if you use prescription medications that may affect your performance.

2. The possession or use of alcohol and illegal drugs on Town property is strictly prohibited.

3. Fighting or horseplay is strictly prohibited.

4. Smoking is permitted only in designated areas.

5. Personal protective equipment shall be worn at all times when required by your supervisor or by safety regulations.

6. Employee owned tools and equipment shall be kept in proper working condition before use, including proper electrical grounding and guards in place.

7. Good housekeeping practices shall be maintained at all times in Town work areas.

8. All employees should learn the location of the nearest fire extinguisher and first aid kit. ~~–~~Notify your supervisor immediately if any of this equipment is missing, or has been used.

9. Familiarize yourself with the proper use of fire extinguishers.

10. Report missing or damaged equipment immediately to your supervisor.

11. All equipment used during the work day shall be de-energized and secured at the end of the day.

12. Hazardous wastes such as waste oils, hydraulic fluids, cleaning fluids etc. shall be disposed in a proper manner.

13. All Town speed limits and traffic signs shall be observed.

14. Report accidents immediately to your supervisor. Complete the necessary forms when reporting accidents.

15. Report any and all unsafe work situations to your supervisor.

16. In the event of an evacuation from a building, immediately contact your supervisor so that a personnel count may be conducted. Return to work areas after receiving proper approval from your supervisor.

17. Use caution when lifting. Bend knees, and keep back straight. Leg muscles, not your back, should do the work. When lifting heavy loads, use lifting devices or get help from other employees. Do not lift large objects in high winds. DO NOT ATTEMPT TO LIFT LARGE/HEAVY LOADS BY YOURSELF.

18. Do not interfere with other employees while they are using power tools, motorized equipment, or when they are working near electrical lines and equipment.

19. Use equipment with safeguards that are adequately designed and intended for normal operations.

20. Clean clothes are essential in preventing skin irritations. Clothing saturated with solvents or other materials contacting the skin greatly increase the possibility of a skin irritation. Clothing saturated or impregnated with flammable liquids, corrosive substances, toxic materials, irritants, or oxidizing agents shall be removed and shall not be worn until properly cleaned. It is recommended that employees working in areas of high contamination keep an extra set of work clothes on the job.

21. Employees shall wear seat belts while operating Town owned or leased vehicles or while operating personal vehicle on Town business.

FIRE FIGHTING EQUIPMENT

1. Use fire extinguishers for emergencies only, unless otherwise approved for training purposes. If used for training, make sure that extinguishers are recharged.

2. Keep fire routes free from obstructions.

3. Report all fires immediately to your supervisor and call 911.

4. Personnel shall be trained in the proper use of fire s by their supervisor.

5. Keep fire equipment and exits free from obstructions.

6. ~~Inspect fire extinguishers on a monthly basis.~~ Monthly visual inspections and **annual third-party inspections** of fire extinguishers.

7. Inspect buildings at least annually for presence of fire hazards, and review emergency evacuation routes and procedures.

PERSONAL PROTECTIVE EQUIPMENT

1. Personnel shall wear personal protective equipment that is consistent with the type of work conducted. This may include but is not limited to eye protection, hand protection, head protection, skin protection, hearing protection or respiratory protection, fall protection. Use appropriate Material Safety Data Sheets, and contact your supervisor to determine what personal protective equipment is required.

2. Approved clothing appropriate for the work being done shall be worn and maintained in good repair. Loose sleeves, tails, ties, lapels, cuffs, or other loose clothing which can become entangled shall not be worn around moving machinery parts. Working without shirts shall not be permitted. Shorts shall be permitted where applicable.

3. Any employee not using the personal equipment provided by the Town, who is

injured on the job and whose injury was caused by failure to use prescribed personal protective equipment, shall forfeit 50% of his/her workers' compensation benefits, pursuant to the Colorado Workers' Compensation Act, section 8-52-104.

4. Employees will wear hearing protection when working in areas marked with appropriate warning signs or upon instructions to do so by their supervisor.

5. Welders and their assistants shall wear approved eye protection during cutting, welding or brazing operations.

6. Respirators shall be worn as necessary. Safety officer will ensure that employees are properly fitted and trained in the use of respiratory equipment.

7. Employees working in elevated work locations (greater than ~~ten~~ eight – feet) shall wear safety belts and lanyards. Mandated guardrails, personal fall arrest systems, or safety nets where applicable.

8. Safety vests or clothing Class II or Class III dot approved, hard hats or soft caps shall be worn by all personnel while working on or near traveled right of ways.

9. Footwear shall be of substantial construction and the use of steel shank shoes is recommended.

10. All personal equipment shall be kept clean, in good repair, and ready for use.

MOVING EQUIPMENT

1. Employees operating Town vehicle or equipment will carry a current driver's license that is valid for the type of vehicle driven.

2. Personnel operating motorized equipment will be adequately trained in its use and operation.

3. Pedestrians will be given right-of-way in all cases.

4. Equipment operators shall obey all speed limit and warning signs, drive their equipment at reasonable and proper speeds with due regard for weather and traffic conditions, intersections, and type of equipment driven.

5. Tank trucks, semi-trucks or the like will be chocked, braked and the engine turned off during loading or unloading operations unless otherwise required for specific equipment operation.

6. All safety and emergency equipment will be in proper working order on vehicles or moving equipment which is currently in use.

7. Vehicles will meet all DOT, FMCSA requirements before they are to be used. Deficiencies must be reported immediately to your supervisor.

8. Except for where specifically allowed by supervisors, employees will have their entire body inside the moving equipment at all times, and shall not enter or exit from moving vehicles or equipment.

9. Before proceeding, employee drivers shall make certain that all loads are properly secured, that employees are so placed as to preclude being exposed to hazards from shifting loads or falls from the sides or end of the .

10. Employees will not ride in buckets, Hi-Ranger lift baskets, forks (of lift trucks), etc. not designed to transport personnel while the vehicle is in motion.

11. Employee drivers shall not permit boarding or alighting from vehicles which they are operating while such vehicles are in motion.

12. Seat belts will be used in all vehicles.

13. The driver shall inspect his or her footwear before driving a vehicle and see that his or her footwear is free of mud, excessive water, oil or grease, to prevent a slippery contact with brake and clutch pedals.

14. Vehicles shall not be operated with dirty or damaged windshields and mirrors, inadequate brakes, faulty steering gear, horn or lights.

15. The brakes and other safety systems shall be tested by the operator before leaving on the first trip of the day and any deficiencies noted and corrected. When required, DOT inspection logs shall be properly filled out and kept in the .

16. The severe application of brakes, especially booster brakes, shall be avoided except in an emergency. The operator must at all times have the vehicle under control so as to be able to bring it to a complete stop within the assured clear distance ahead.

17. No vehicle shall be parked on a hill or grade unless the front wheels are turned into the curb or the wheels securely chocked.

18. No vehicle shall be driven on a downgrade with gears in neutral or clutch disengaged.

19. Employee drivers shall not permit more employees to ride on seats than the number for which the seats were constructed.

20. All tools and equipment shall be properly guarded, stowed, and securely fastened when transported. All doors of cabinets and lockers must be latched before moving truck.

21. Crowding or pushing when boarding or leaving any or other conveyance is prohibited.

22. When possible do not load and unload a vehicle from the street side of the load.

23. Special regulations and instructions governing the loading and unloading of poles, pipes, etc., shall be strictly observed in every case.

24. The vehicle hood shall be secure at all times when it is raised. When it has been lowered into position it shall be checked to determine that it is completely latched.

25. Vehicles provided with tail gates shall not proceed until the tail gates and or load is secured.

1. Store and stack material so that the load is stable.
   Floors and platforms supporting loads must be properly constructed to support the loads.

2. When moving material with lift trucks, make sure the load is balanced and stable.

3. Do not exceed load carrying capacity of vehicles being used.

4. Store and stack material in approved locations. Make sure all aisle widths conform to uniform Fire Code and uniform Building Code.

5. Keep aisles, stairways, exits, fire equipment, water heaters, boilers, electric panels and switch boxes well marked.

6. Do not store materials where exits, fire fighting equipment, emergency equipment, s, walkways or roadways may be obstructed.

7. Do not store materials near sources of combustion or electrical equipment.

8. Maintain a clear view when moving loads.

9. Sharp or pointed articles shall be so stored as to prevent contact with the sharp edges and points. Remove nails, exposed wire and other hazards associated with packing devices after materials have been stored.

10. Determine that storage areas above offices and store rooms will adequately support the material to be stored.

11. Be sure that flammables are stored a safe distance from occupied or office areas.

HOUSEKEEPING

1. Keep all work areas orderly and clean.

2. Keep aisles and passageways clear and accessible.

3. Clean up all spills and/or leaks.

4. Place rags and other materials in approved containers.

5. At the end of the work day or upon completion of a job remove all tools and excess materials, and barricade the area if necessary.

6. Maintain all storage areas in a clean and organized manner. Remove all packing material after products have been adequately stored.

HAND TOOLS

1. Select the proper tool for the work intended.

2. Use tools that are in good repair. Replace any damaged tools immediately.

3. Powered electrical tools are required to have a grounding plug or be double insulated.

4. Tools should be inspected before each use.

5. Secure tools when transporting them in vehicles.

POWER TOOLS

1. Carefully read instructions before using power tools.

2. Ground all tools before using them, and do not alter three prong grounding plugs.

3. Use the correct tool for the job.

4. Do not disconnect tools by pulling on the cord.

5. Do not use equipment with frayed or damaged cords.

6. Avoid using power tools in wet situations whenever possible.

7. Do not change bits, blades, etc. when the tool is energized. Unplug the tool before making changes.

8. Do not operate power tools without guards.

9. Wear eye protection when using power tools.

10. Fuses and other over-current protection shall be maintained in all circuits. Circuits on which power tools are used shall not exceed 20 amperes rating unless otherwise approved.

11. Extension cords shall not be used as a substitute for fixed wiring of a structure or building. Electrical outlets should be installed where needed.

12. Do not leave the cords of portable electric tools where cars or trucks will run over them.

LADDERS

1. Ladders shall be in good repair and used in their intended manner.

2. Wooden ladders shall not be painted.

3. Ladders shall be placed so that the base is one (1) foot out for every four (4) feet of height.

4. Ladders shall be properly secured and equipped with shoes at the bottom to prevent slippage.

5. Always climb and descend facing the ladder. Ladders are not to be used as s.

6. Only one (1) person shall work on a ladder at a time, unless designed for two.

7. Metal ladders shall not be used near electrical lines, electrical cabinets, or energized equipment.

8. **Modified ladders shall not be used**.

9. Benches, boxes and other materials shall not be used in place of a ladder.

10. Damaged ladders will be repaired or discarded.

11. Ladders should be inspected prior to each use, and repaired or taken out of service if not up to standards.

12. Ladders should not be placed in front of doors unless the doors can be secured.

13. Materials should not be carried by hand when ascending and descending a ladder.

14. When using unsecured extension ladders tow or more employees shall work as a buddy system.

15. Never use top steps or cap of step ladders as a step.

16. Ladders must meet ANSI A14 standards for construction and labeling.

SCAFFOLDS

1. All scaffolding shall be installed by qualified individuals.

2. All scaffolding shall be constructed of approved materials in an approved manner, per OSHA Standard 1926.451.

3. Scaffolding shall be equipped with toe boards and guardrails in locations greater than ten (10) feet.

4. Safety belts and lanyards shall be used if scaffolding cannot be provided with guardrails.

5. Scaffolding shall be equipped with a ladder to facilitate access.

6. Scaffold boards shall not be painted.

7. Mobile scaffolds shall not be moved while personnel are located on them.

8. Metal scaffolds shall not be used in or near electrical lines or equipment.

9. Scaffold planking to support **four times the intended load**.

BARRICADES AND WORK AREA PROTECTION

1. ~~1.~~ Working in traffic exposes employees to extreme danger. Construction and maintenance work on streets and roadways can result in hazards to workers, motorists, and citizens alike. Since the risk of injury or death in such work is significant, certain safeguards must be instituted to minimize the risks.

2. High-visibility clothing for roadway workers must meet **ANSI/ISEA 107-2020 Class II or III** standards.

Manual on Uniform Traffic Control Devices (MUTCD)

2. All Town work zone set-ups must conform to the MUTCD. Published by the Federal Highway Administration, the MUTCD is the standard manual for signs, barricades, lights, and warning devices used to protect work areas under construction in the roadway. Supervisors are responsible for assuring that employees doing job site set-ups are trained in its provisions. Failure to protect a work zone according to MUTCD specifications leaves the Town open to liability claims. (Copies of the Manual can be obtained by contacting the Superintendent of Documents, US Government Printing Office, Washington DC 20402, stock # 050-001-00308-2.)

Planning

3. Before undertaking any construction, planning must be done. With minor jobs such planning may be minimal. Larger projects may require considerable planning efforts. As a minimum, consideration must be given to the hazards that passing motorists may pose to workers, and the hazards that the construction may pose to passing motorists. Also, does the work pose any risks to pedestrians or by-standers? How much of the roadway will need to be blocked off? Where should work vehicles and equipment be placed? Will the construction be left open at night? Will flaggers be necessary? Will visibility

be a problem to motorists? In answering such questions by referring to the MUTCD, potential risks can be identified and appropriate steps can be taken to control such risks.

Training

4. Training is essential if employees are to be expected to set up a work in conformance with the MUTCD, and to work safely within the work zone. Supervisors should assure that they and their workers receive proper training through at least one of several sources available, including the Colorado Contractors Association, the American Traffic Safety Services Association, and the Colorado Transportation Information Program through Colorado State University, and CIRSA, the risk sharing pool for Colorado municipalities.

Personal Protective Equipment

5. Safety s or clothing class II or III and approved hard s or soft caps shall be worn by all personnel while working on or near traveled right of ways.

6. Vests shall be class III for all night and low visibility times.

7. A hard hats shall be worn whenever there is exposure from overhead work to impact, or from falling or flying objects, or to electrical shock and burns. Hats should be of a color that enhances visibility, and may be equipped with reflective tape for enhanced night visibility.

8. Other personal protective equipment may be required depending on the type of work being done. The object is to make workers as visible as possible to motorists, especially if work is required at night.

Protection of the Public

9. Work areas should be properly protected for safety of the public. Signs and barricades shall be erected in such a way as to warn of the existence of a hazard, and prevent or minimize entry into hazardous areas.

10. Barricades with warning tape, signs, flags, cones or other approved devices must

be erected to restrict access in an area where hazards to traffic or pedestrians

may exist. This could include a subsurface or overhead hazard.

11. Excavations or open manholes, or the like shall be adequately barricaded.

12. Warning lights may be installed, or visible barricades erected if openings are left overnight.

WORKING OVERHEAD

1. When working overhead, take precautions to protect personnel working below. Loose materials, tools and the like must not be left in places where they can be knocked, blown or vibrated off-balance and fall.

2. Rope off or barricade the area below the overhead work to prevent access to non-working personnel.

3. Do not drop or throw material, tools or supplies from overhead work areas.

4. Use a tag line to lift heavy or awkward loads.

CRANES, HOISTS, ETC.

1. Inspect the hoist or crane before work begins.

2. Inspect chains, chokers, etc. before securing to load.

3. Fasten chains, chokers, etc. securely to the load.

4. Use tag lines for heavy or awkward loads.

5. Keep all personnel away from the area below the boom or load.

6. Barricade beneath the swing radius of the boom.

7. Only one person shall give directions to the equipment operator.

8. When equipment is left unattended, its block and load shall be secured and the equipment de-energized.

9. Personnel shall be adequately trained in the use of hoists, cranes, etc.

10 Repair and/or maintenance of chains, chokers, hoists, etc. shall be conducted by a qualified individual.

11. Personnel shall not be lifted or lowered with a crane unless proper equipment is utilized. Contact your supervisor for additional instructions.

12. **All personnel working with or near cranes shall where hard hats**.

MANUAL LIFTING

1. Inspect the path that must be traveled when lifting . Where possible, remove obstacles from path.

2. Back support belts are issued to employees and should be used when lifting . In certain situations, belt use is mandatory: consult your supervisor.

3. Use powered equipment whenever possible to avoid unnecessary back strain.

4. When you must lift heavy materials, use the following procedures:

   a. Separate and place both feet close to the object lifted.
   b. Bend knees and squat down to the object to be lifted.
   c. Grip the object with the palms of the hands.
   d. Position the arms and elbows close to the body.
   e. Draw the chin towards the chest to straighten the back and lift with the back in a vertical position.
   f. When shifting a load, turn the feet but do not twist the trunk.

5. When two or more individuals are lifting a load, use signals to coordinate the lift so that an injury does not result.

COMPRESSED GAS CYLINDERS

1. Store all cylinders in upright and fastened positions.

2. Place the protective cap on cylinders when they are not being used.

3. Keep stored oxygen cylinders at least twenty (20) feet from acetylene cylinders and other s.

4. Always check the label or stencil on the cylinder to make certain you have the proper gas.

5. Never use oil or grease as a lubricant on valves or attachments of oxygen cylinders.

6. Do not store cylinders next to heat sources.

7. Always transport cylinders in a secured, upright manner.

8. Tag or label all cylinders full or empty-.

LOCK, TAG AND TRY

1. Electrically powered equipment shall be de-energized before mechanical work is done on such equipment.

2. Power switches shall be locked out or other measures taken which shall prevent the equipment from being energized without the knowledge of the individual working on it.

3. Suitable warning notice shall be posted at the power switch and signed by the individuals who are to do the work.

4. Such locks or preventive devices shall be removed only by the persons who installed them.

5. Each individual group of individuals working on the powered or equipment shall place a lock and tag on the disconnect switch.

6. Locks and tags shall be removed from the disconnect switch only after all personnel are clear of the power equipment and it is in working order.

7. Defective equipment, removed from service as unsafe to operate, shall be tagged and locked, if necessary, to prohibit further use until repaired.

WELDING, CUTTING OR BRAZING

1. Inspect the area to assure that flammable or combustible materials are not present.

2. Inspect the equipment to be worked upon before the work begins. Drums, barrels or small containers shall be thoroughly cleaned before the work begins.

3. All storage tanks or vessels must be clean, gas free, and blinded before the work begins. Mechanical ventilation shall be provided in any space less than 10 cubic feet per welder or any other confined space where natural cross ventilation is restricted. Ventilation shall be at a rate of at least 2,000 cubic feet per minute.

4. When working inside a vessel, welding gasses which are not in current use shall be turned off both at the nozzles and the cylinders to prevent leakage and gas buildup.

5. Test the area for flammable or combustible materials before re-entering after taking any breaks.

6. Test the area for flammable or combustible materials at the beginning of each shift if work is going on continuously.

7. A fire watch shall be assigned to all cutting or welding operations that are conducted outdoors or in the vicinity of any flammables.

8. A fire s shall be made readily available during all cutting or welding operations. The fire watch and employees doing welding or cutting shall be familiar with the operation of a fire extinguisher.

9. Report any fire that results during a cutting or welding operation.

10. Welding shields shall be used if the work is conducted in a high activity area, for protection of passersby. When working in welding areas, employee shall avoid looking at an electric arc without approved welder's eye protection. Serious eye injury could result.

11. Personnel will wear appropriate eye and skin protection, including gloves , and approved helmet or goggles for the type of operation performed.

12. Welding and/or cutting cylinders will be operated in a standing position, with cylinders properly secured.

13. Keep grease and oil away from oxygen cylinders. Never let grease or oil, even on your hands, get near oxygen cylinder controls; the combination forms a highly explosive mixture.

14. Open valves on welding and/or cutting cylinders slowly. Before connecting a regulator to a cylinder valve, the valve should be opened slightly and closed immediately. (This is termed "cracking" and is done to purge the valve of dust or dirt that might enter the regulator.) Stand to one side of the outlet, not in front of it, when cracking the valve.

15. When an oxygen cylinder is in use, valves shall always be opened completely. Valves shall be turned "OFF" when not in use.

16. Replace caps and properly store empty welding and/or cutting cylinders. Oxygen cylinders in storage shall be separated from fuel gas cylinders (and other combustibles) by at least 20 feet or separated by a 30 minute fire resistive barrier of at least 5 feet high.

17. Practice good housekeeping techniques at all times in welding and cutting areas.

18. Properly ventilate any welding area. Check ventilation equipment annually to make sure air flow is adequate.

19. Use Acetylene only at pressures below 25 pounds per square inch. At higher pressures the gas is unstable and may explode.

20. Do not use copper tubing to repair acetylene hose. Acetylene will attack pure, unalloyed copper, forming a very explosive powder, copper acetylide.

21. Never strike an arc on, or tap an electrode against, a cylinder.

22. Always use a spark lighter to light a torch. Never use matches.

23. Never use oxygen to dust off clothing and the work area. Use fuel gases only for intended purpose.

24. All arc welding ground connections shall be mechanically strong and adequate for the required current.

25. When not in use, electrode holders shall be placed so that they cannot make al contact with persons, objects, fuel or compressed gas tanks.

26. Cables with splices within 10 feet of electrodes are prohibited from being used.

27. Cables with damaged insulation or exposed bare conductors shall be replaced.

28. The welder shall not coil or loop the electrode cable around parts of his body.

29. Do not leave welding rod stubs on the ground or floor where they may cause an accident.

CONFINED SPACE WORK

INTRODUCTION

The term "confined space" is often misunderstood. The following introductory section is designed to be educational: it explains confined spaces and outlines their characteristics and hazards, with an explanation of the Town confined space program. Actual Town safety rules regarding confined spaces begin on page 28.

What is a confined space?

Unlike a trench or excavation, 'confined space' is not something easily visualized by the mind. Part of the reason for this is that a confined space can be almost anything. However, it does have some common components that we can define.

1. It is not designed primarily for human occupancy.

2. It has restricted entry and exit...hence, **confined**.

3. It may contain a hazardous condition.

This third component is particularly hard to pin down: these spaces just as likely may **not** contain any hazardous condition. The unknown element here is a particular hazard with confined space because it can lull people into a false sense of security. This uncertainty is particularly true with atmospheric hazards which may not be readily perceived by the senses. Besides atmospheric hazards, other hazards that may be encountered in a confined space can be mechanical, electric electrical, entrapment, and engulfment.

What are some typical confined spaces?

In a municipality, sewer lines and manholes are among the most commonly encountered confined spaces. However, other common confined spaces found in municipal operations might include:

- storage tanks and trash containers
- utility pits

- tank trucks and trash trucks
- storm sewers
- lift stations
- trenches

Again, however, a confined space may be any space meeting the above three criteria, and failing to recognize or identify a confined space can be a hazard in itself.

Why are confined spaces hazardous?

The word that best describes the hazardous nature of a confined space is: "uncertainty". Often the conditions within a confined space appear benign. Workers enter such spaces routinely to make repairs, perform maintenance work, check readings of gauges or meters, clean, etc. At such times, the conditions within the confined space may have been harmless. In many instances the worker has performed the task within the confined space repeatedly without incident. Thus, the worker is lulled into a false sense of security that the space will always be harmless, or that any necessary escape from the space will be quick and easy.

However, because the space is **confined**, toxic or atmospheres may become contained and concentrated. Mechanical or electric electrical hazards may be in direct proximity to the worker where they can be mangled or electrocuted. The worker can become entrapped or engulfed by material within the space. Because, by definition, a confined space has restricted entry and exit, escape becomes difficult or impossible. The worker thus may be seriously or fatally injured.

Another reason confined spaces can be hazardous is that workers fail to recognize a confined space as being such. It is important for the municipality to first identify every confined space that it has as the first step in a confined space safety program.

What are some of the common hazards?

Atmospheric Hazards

Atmospheric hazards can vary depending on the type of confined space. However, one potential atmospheric hazard common to most confined spaces is oxygen deficiency. There are numerous conditions that can cause oxygen deficiency. Furthermore, insufficient oxygen is a condition that cannot be sensed by the worker. The end result

may be that the worker enters the space, gradually becomes faint, passes out, and perhaps dies from this lack of adequate oxygen.

Another common atmospheric hazard in sewers and manholes is sewer gas or hydrogen sulfide. Because it is heavier than air, this gas settles near the bottom of the confined space. In small concentrations, its typical 'rotten egg' smell is easily recognized. However, in higher concentrations it may not be smelled and can immediately cause unconsciousness. The worker can be dead in a matter of a few seconds.

Flammable or toxic atmospheres are another risk. Hydrogen sulfide, methane, carbon monoxide can all reach levels of explosive concentration. Petroleum products fumes can often be encountered in many confined spaces, as well as fumes of other s. A match, a spark from a hammer, static ity, lighting a welding torch... all can easily cause an immediate explosion. Gases such as hydrogen sulfide and carbon monoxide are also very toxic and can cause death in relatively low concentrations.

Mechanical Hazards

Some confined spaces may contain mechanical equipment with sharp blades or other moving parts that can become accidentally energized and mangle a worker. Stored energy from springs or counterweights, for example, can be accidentally triggered causing the mechanical equipment to move suddenly and injure the worker.

Electric al Hazards

Like mechanical hazards, a confined space may also contain al equipment that can accidentally become energized and electrocute the worker.

Entrapment

Workers can become trapped within a confined space and die from exposure. The space can be unknowingly closed trapping a worker inside. Workers can drown inside a water line when an upstream valve is unknowingly opened. Some substances, such as asphalt, can cause entrapment due to their viscosity or "stickiness." Training for rescuers in confined space entry and retrieval, along with on-site retrieval systems.

Engulfment

An example of this type of hazard would be a salt or sand bin where a worker walking

on the surface of the substance in the bin can literally be swallowed by the motion of the material and suffocate.

In addition to these possible hazards, confined spaces may contain excessive heat causing heat exhaustion or can contain excessive noise requiring hearing protection. Dim or inadequate lighting may increase the likelihood of accident and injury.

What precautions are needed in confined spaces?

Identify All Confined Spaces

You should begin by identifying every confined space that workers may be required to enter within the scope of their work. Applicable employees then need to be informed of the existence, locations and dangers of these spaces by posting danger signs or other equally effective means. Employers must identify confined spaces and document non-entry rescue procedures.

Permit Entry System

Many injuries and deaths occur in confined spaces because a worker enters a confined space without telling anyone or because workers are not warned of known hazards. To prevent these tragic occurrences, a permit entry system must be in place for Town Divisions who may have to work in confined spaces. The entry permit system shall require that a permit be completed for any worker to enter into a confined space. The permit forces both the worker(s) and management to recognize the confined space as being a hazard, identify the hazards that may be encountered upon entry, require any testing of the atmosphere and require the use of proper PPE, attendants and rescue equipment. OSHA regulations and the Town Safety Regulations (provided at the end of this section) require the use of a permit entry system when entering confined spaces.

Testing

Testing for atmospheric hazards is also an OSHA requirement. Many hazardous atmospheres cannot be detected by our sense of smell. These include carbon monoxide, oxygen deficiency, methane, and large concentrations of hydrogen sulfide. Without testing, the worker's first clue to the presence of the hazard might be sudden collapse

and subsequent death. Testing of a confined space thus becomes critical. Furthermore, since such hazardous substances tend to be heavier than air and displace air, testing of the confined space must be done **at the bottom** of the confined space especially, although the rest of the space also needs to be tested.

Safety Equipment

The permit entry system needs to address individual items of safety equipment needed for each confined space. This might include respirators, hard s, safety harnesses, etc. This would also include emergency equipment necessary for any rescue such as a rescue tripod, winch, first kit, etc.

Monitoring

For prolonged periods of work in a confined space, provision for continued monitoring of the space may be necessary. Portable monitoring devices may be needed to detect and warn workers of changing atmospheric hazards.

Ventilation

One of easiest methods of reducing or eliminating hazardous atmospheres, particularly in manholes and sewer lines, is through ventilation. Mechanical blowers can eliminate many hazardous atmospheres if properly set up and used.

Observation

No worker should enter a confined space without a trained attendant standing by to summon help or operate a man-lift in the event of an emergency. The attendant is part of the permit entry system.

Training

As with any hazardous activity, training is essential to prevent accidents and fatalities. Equally important is the periodic use of emergency drills. Such drills help ensure that employees respond properly in emergency situations. Training should be documented and records maintained. Yearly training shall be conducted.

On the following page are listed the safety regulations that apply to all Town operations when a confined space must be entered. However, some Town locations may have their own specific confined space entry program. If you are working in one of these areas, consult this program for more detailed instruction.

CONFINED SPACE SAFETY REGULATIONS

1. Review the specific **Confined Space Program** of the department or facility before beginning work.

2. Any vessel entered shall be properly blinded and/or isolated before work begins.

3. The vessel will be clean, gas free and contain adequate oxygen concentration before entry is permitted.

4. An **Entry Permit** shall be issued before anyone enters a permit-required confined space.

5. A **Confined Space Attendant** shall be assigned to the work area. The attendant will be adequately trained in the duties of a **Confined Space Attendant** as defined in OSHA regulations.

6. A **Confined Space Attendant** shall not leave the area when personnel are working inside a confined space.

7. The potential hazards of a confined space will be determined prior to entering the confined space.

8. All personnel entering the **confined space** will be adequately trained.

9. Personnel entering the confined space will be briefed by their supervisor as to the risks of the operation.

10. The confined space atmosphere shall be monitored on a regular basis. The area should be retested after breaks or lunch periods.

11. Do not enter a confined space unless you are properly attired to do so.

12. Contact a supervisor if assistance is required. **Never enter a confined space when unsure of the hazards.**

13. Rescue involving a confined space **shall not be attempted** unless the rescuers are qualified and properly trained and equipped for confined space rescue.

14. Do not attempt rescue without appropriate personal protective equipment.

15. Immediately report any confined space incident and/or accident to your **supervisor**.

16. If unsure or further information is needed, consult OSHA Standard 29 CFR 1910.146.

HAZARD COMMUNICATION PROGRAM (HazCom)

INTRODUCTION

The following introduction describes the purpose and scope of Hazard Communication programs as defined by OSHA. It is intended to assist in educating safety representatives and employees concerning hazardous substances, and provide guidance in implementing facility-specific Hazard Communication Programs. Each facility which deals with hazardous substances must have a Hazard Communication Program conforming to these general guidelines. Following the Introduction is the section which includes the hazard communication safety regulations for use throughout the Town, and in facilities without a facility-specific program.

The basic goal of a hazard communication program is to provide information to Town employees about the chemical hazards they work with and how to protect themselves. This knowledge, in turn, should help to reduce the incidence of chemical source illnesses and injuries.

About 32 million workers are potentially exposed to one or more chemical hazards. There are an estimated 575,000 existing chemical products, and hundreds of new ones are being produced annually. Chemical exposure may cause or contribute to many serious health effects. Also, chemicals may also present safety hazards and have the potential to cause fires, explosions and other serious accidents. Due to these hazards the Occupational Safety and Health Administration (OSHA) issued a rule in 1983 called Hazard Communication. The scope of this rule was expanded in 1987 to include employers in the non-manufacturing sector. To underscore the pertinence of Hazard Communication for municipalities, a partial list of hazardous chemicals often associated with municipal operations include:

Formaldehyde	Hydrochloric acid	Nitric acid	Sulfuric acid	Stoddard Solvent
Mercury	Sodium hydroxide	Acetone	Toluene	Isopropanol
Trichloroethane	Lead	Hydrazine	Ammonia	Ethylene glycol
Phenol	Ethyl acetate	Pesticides	Crystalline Chlorine	Sulphur
Carbon monoxide	Asbestos	Freon	Hydrogen sulfide	
Nitrous oxides	Asphalt	Mineral Spirits	Portland cement	
Sulphur Dioxide	Ferrous Sulfide	Silica	Ferric Chloride	

Please note that the above is only a **partial** listing.

Given that Towns such as Grand Lake have exposure to these or other hazardous chemicals, it is prudent for all facilities using chemicals to have a program based on the Hazard Communicaton rule CFR 1910.1200. The following outlines the requirements of such a program and explains the various elements.

There are five basic requirements under the OSHA Hazard ~~–~~Standard:

1. A written plan must be established explaining how the Hazard Communication Program works for the facility and who is responsible for various items in the implementation of the program.

2. An inventory of on-site chemicals must be assembled on a list that identifies each one of them consistently with the label .

3. A procedure must be developed for inspecting, creating, and maintaining container labels. Mandatory labeling requirements with pictograms, hazard statements, and precautionary statements.

4. ~~Material Safety Data Sheets (MSDS)~~ Safety Data Sheets (SDS) must be collected for all products containing more than one percent of a hazardous chemical. These sheets must be accessible to employees, contractors and medical personnel.

5. Employees must be trained on the updated system, including how to interpret SDS and labels, as well as ~~regarding~~ the possible chemical hazards specific to their worksite. This training should also include procedures for safe handling of chemicals and protective devices that should be worn to limit exposure in the event of a spill or release.

The Hazard Communication Standard requires a **written program**, whether or not the Town introduced the hazard in the workplace. The written program must address the following items:

Labeling

1. The designation of the person(s) responsible for ensuring labeling of containers within the facility.

2. Designation of person(s) responsible for ensuring labeling on shipped containers.

3. Description of the labeling system used.

4. Description of written alternatives to labeling of facility containers, where applicable.

5. Procedures to review and update label information when necessary.

~~*Material Safety Data Sheets (MSDS)*~~ *Safety Data Sheets (SDS)*

1. Designation of person responsible for obtaining/maintaining the .

2. How such sheets are to be maintained (e.g., in notebooks in the work area, via a computer terminal, in a pick-up truck at the jobsite, via telefax) and how employees obtain access to them.

3. Procedures to follow when the ~~MSDS~~ SDS ~~-~~is not received at the time of the first shipment from the supplier.

Training

1. Designation of the person(s) responsible for conducting training.

2. Format of the program to be used (audiovisuals, classroom instruction, etc.).

3. Elements of the program - (discussed in the following).

4. Procedures to train new employees at the time of their initial assignment and when a new **hazard** is introduced into the workplace.

5. Procedures to train employees of new hazards they may be exposed to when working on or near another employer's worksite (i.e., hazards introduced by other employees).

Other Items of Discussion

1. Does a list of the hazardous chemicals exist, and if so, is it compiled for each work area

or for the entire worksite and kept in a central location?

2. Are methods the employer will use to inform employees of the hazards on **non-routine** tasks outlined?

3. Are employees informed of the hazards associated with chemicals contained in unlabeled pipes in their work areas?

4. Does the plan include the methods the employer will use at multi-employer worksites to inform other employers of any precautionary measures that need to be taken to protect their employees?

5. For multi-employer workplaces, are the methods the employer will use to inform the other employer(s) of the labeling system used described?

6. Is the written program made available to employees?

The Chemical Inventory

An inventory of the **hazardous chemicals** present at the facility should be assembled. It is prudent to keep this list near the front of every book of ~~MSDS~~SDS ~~-~~with product names as they appear on the ~~MSDS~~ SDS. This can be used as a cross reference which allows the user of a chemical to readily find needed information.

A hazardous chemical is any chemical that presents a physical and/or health hazard as shown by at least one study where the hazard was recognized at a level showing statistical significance. If OSHA has published a Permissible Exposure Limit (PEL), or the American Conference of Governmental Industrial Hygienists (ACGIH) has established a Threshold Limit Value (TLV) for the chemical, the chemical is automatically deemed hazardous. With the exception of highly toxic or cancer-causing chemicals, all chemicals present in quantities greater than one percent in a product must be listed in the inventory. Chemicals that are more toxic (e.g., benzene) must be listed if in a product at greater than 0.1 percent.

The chemical inventory should include the manufacturer's product name, location, and telephone number; and the work area where the product is used. Hazardous chemicals that may be generated in the work operation by the municipality must also be listed (e.g., welding fumes). A procedure should be developed to keep the list current when new substances are purchased and used. If any product containing a hazardous chemical is used in greater frequency or quantity than typical consumer use, the product or

chemical should be included on the chemical inventory.

A helpful way to organize the inventory is to separate the chemicals and/or products into various classifications (e.g., , highly toxic, carcinogenic, etc.). The National Fire Protection Association (NFPA) has a system that classifies chemicals having acute effects into certain groups in accordance with similar characteristics. These classifications are helpful to train workers on the types of hazards in the workplace. However, the classifications are based on how the chemicals react in the event of a fire. This may or may not be indicative of how the chemicals behave at room temperature. Until a standardized labeling and classification system is developed, a combination of communication measures may be appropriate.

Labeling

The standard requires that any container, bag, barrel, box, bottle, etc. be labeled if it contains hazardous materials and is not used merely by one person during one work shift. Given these criteria, a pail or beaker of hazardous material must be labeled if used to transfer material from a larger receptacle such as a 55 gallon drum. The labels on both the larger receptacle and the container used for transfer must have the same information. The chemical or trade name and the labels should be the same as that on the Material Safety Data Sheet.

Labels must include the following:

1. The chemical or mixture's trade name.

2. The name and address of the manufacturer.

3. A warning with regard to the potential health effect or hazard - NFPA labels can be used for this in most cases.

Material Safety Data

If a product is purchased containing more than one percent of a hazardous chemical, an ~~MSDS~~ SDS should accompany the shipment of the product. If an ~~MSDS~~ SDS is not attached, a system to ensure that the appropriate ~~MSDS~~ SDS is received should be put in place. The purchasing department also has the option to implement a policy which will refuse all shipments of hazardous materials not accompanied by an ~~MSDS~~ SDS. Hazardous products bought at the hardware store that are used with greater frequency or amounts than typical consumer use must also have an ~~MSDS~~ SDS. However, these items will not typically be bought with an ~~MSDS~~ SDS. Therefore, the hardware store should be contacted to determine the supplier who sold the product. This supplier should then send an ~~MSDS~~ SDS upon request.

After obtaining the ~~MSDS~~ SDS, the data sheet should be checked to determine whether all the necessary items are included. The following is a list of required items:

1. Product or chemical identity used on the label.
2. Manufacturer's name and address.
3. Chemical and common names of each hazardous ingredient (including CAS numbers).
4. Name, address, and phone number for hazard and emergency information.
5. Preparation or revision date of the ~~MSDS~~ SDS.
6. The hazardous chemical's physical and chemical characteristics, such as vapor pressure and flashpoint.
7. Physical hazards, including the potential for fire, explosion, and reactivity.
8. Known health hazards (including signs and symptoms of exposure or any medical conditions aggravated).
9. OSHA Permissible Exposure Limit (PEL), ACGIH Threshold Limit Value (TLV), or other exposure limits.
10. Emergency and first aid procedures.
11. Whether OSHA, NTP or IARC lists the ingredient as a carcinogen.

12. Precautions for safe handling and use.

13. Control measures such as engineering controls, work practices, hygienic practices or personal protective equipment required.

14. Primary routes of entry.

15. Procedures for spills, leaks, and clean-up.

One quick way to check the ~~MSDS~~ SDS is to see if all blocks/spaces are filled out as is required by the standard. The ~~MSDS~~ SDS can be in any format as long as it has the above information. If the ~~MSDS~~ SDS does not give adequate information, it may be best to contact the supplier for a more complete ~~MSDS~~ SDS or to send the product back and refuse to use that vendor unless an adequate ~~MSDS~~ SDS can be obtained.

The ~~MSDS~~ SDS must be available to employees, their designated representatives, emergency personnel such as fire departments, and to appropriate government agencies.

The purpose of the ~~MSDS~~ SDS is to communicate the hazards, safe handling and emergency procedures, and contact information for further assistance if needed; for routine use as well as emergencies.

All the ingredients of the product will be listed if in a percentage greater than one percent. Many times, manufacturers and suppliers will not disclose the ingredient for proprietary reasons. This is permissible for ingredients that are not considered hazardous.

The Chemical Abstract System (CAS) number which is a unique number assigned to each , should be included on the ~~MSDS~~ SDS next to that chemical. The CAS number relates to a chemical registry which allows one to find a particular chemical and information regarding it in a computer data base. Chemicals can be known under a number of different synonyms so the number is assigned to assure the chemical's accurate identity.

Some products during normal use or during heating may give off hazardous by-products even though they may not be hazardous in their original form. This information is important to protect against potential hazardous exposures. Any material which may emit hazardous components when being formed, welded, sawed, etc. must have an ~~MSDS~~ SDS. For example, bricks may require an ~~MSDS~~ SDS if the bricks are sawed and present an exposure to silica dust (sand).

Interpretation of the Standard Regarding ~~MSDS~~ SDS

~~MSDS~~ SDS must be written in ~~English, but~~English but can be translated into other languages for the purposes of training.

Hazardous chemicals need not be reported on the ~~MSDS~~ SDS if it can be demonstrated that the hazardous components are bound in such a way that there is no potential for exposure to it. The standard defines exposure as potential as well as measurable exposure by any route of entry, either under normal conditions of use or in a foreseeable emergency. If there is no potential exposure given this definition, the chemical is not covered under the standard.

Computer generated ~~MSDS~~ SDS do not have to include fields which do not apply to the chemicals for which it is being used. In "standardized" forms where the information does not apply, this should be noted appropriately (e.g., N/A).

Where evidence indicates that a class or family of chemicals presents similar health hazards, it is appropriate to report those findings on the ~~MSDS~~ SDS with respect to the entire class or family. NFPA classes of chemicals can be used in such a way.

The standard requires readable ~~MSDS~~ SDS or electronically accessible ~~MSDS~~ SDS to be maintained on site. This may be accomplished by the use of computers with printers, microfiche machines, and/or tele-fax machines. The key issue in compliance is that no barriers to access needed information exist during the work shift. For highly toxic chemicals, it may be helpful to have ~~MSDS~~ SDS (available within 15 minutes) at each job site. For less hazardous chemicals, accessibility during the work shift is appropriate.

Communication of the hazard information via telephone does not satisfy the requirements of the standard. However, if employees are working at remote stations, (trucks, construction trailers, etc.), vital information related to an emergency can be communicated via telephone, radio, etc. with subsequent sending of hard copy ~~MSDS~~ SDS via mail, fax or delivery. In this scenario, a person must be stationed whenever appropriate at the central location to disseminate information to those at remote locations.

A system for retrieval of ~~MSDS~~ SDS should not require that a supervisor be contacted. The locations where the ~~MSDS~~ SDS books or computer terminals having the same information are kept should not be locked up preventing access. If computers or tele-fax systems are used exclusively to communicate hazard information, all employees must be trained on

their proper use. On multi-employer jobsites with contractors, municipalities must provide contract personnel foremen/supervisors with ~~MSDS~~ SDS of products or chemicals that they may contact either routinely or in a foreseeable emergency in the scope of their work. If the contract employer(s) bring hazards to the municipality's worksite, they must submit ~~MSDS~~ SDS to the appropriate city personnel and any other contractor's foreman if exposure is possible for other's employees.

Arrangement of ~~MSDS~~ SDS Books

Although there is no prescribed system for arranging the ~~MSDS~~ SDS books, some suggestions are appropriate:

1. A comprehensive book having all the ~~MSDS~~ SDS will be kept in each department. This book shall be updated by the supervisor yearly.

2. A chemical inventory for that particular department should be kept at the front of each ~~MSDS~~ SDS book, with and exhaustive inventory kept in the book discussed in suggestion(1).

3. The books should be divided in a logical manner. One way to separate the books is by class of (e.g., acids, bases, flammables, carcinogens). Another way to separate the book is by type of use (e.g., lubricants, cleaning products, compressed es, products, adhesives, paints). After these divisions are made, it is most helpful to compile the products/chemicals alphabetically by trade name.

4. After organizing the book, it is helpful to use the inventory as an index, noting the page number or section that the ~~MSDS~~ SDS for the chemical resides. There should be some method to update the index as new ~~MSDS are~~ SDS placed in the book.

5. It is highly recommended that the Hazcom Written Program be placed near the front of each ~~MSDS~~ SDS book.

6. The ~~MSDS~~ SDS books at each location must be periodically updated by a designated person.

TOWN-WIDE HAZARD COMMUNICATION REGULATIONS

1. Review the **Hazard Communication Program** of the department or facility before working with any chemicals. Check material safety data sheets of chemicals prior to use.

2. Wear appropriate personal protective equipment as recommended by material safety data sheets when working with chemicals.

3. All personnel working with chemicals shall be adequately trained in potential hazards of the chemicals they are using.

4. Report all injuries or accidents immediately.

5. Clean up all minor spills.

6. Evacuate and cordon off the area, call 911, and contact **your supervisor** if a major spill of hazardous materials should result. DO NOT attempt to clean up a hazardous materials spill alone.

7. Properly store chemicals in such a way that chemical incidents do not result.

8. Properly label all containers containing flammable, poisonous, toxic, or otherwise dangerous materials.

9. Store insecticides, pesticides, herbicides, flammables, and strong acids in storage that is locked from public access.

10. Post signs informing personnel that hazardous chemicals are located in cabinets, lockers, closets, etc.

11. Employees required to wear respiratory equipment must be qualified to do so. This includes but is not limited to training, medical qualifications, and fit testing of respirators.

12. Only approved solvents will be used to clean parts and materials.

13. Gasoline, kerosene and other potentially dangerous materials will not be used as cleaning solvents.

14. Employees shall wear as a minimum gloves and goggles when working with

cleaning solvents.

15. Maintain adequate ventilation when working with chemicals.

16. Employees should know the location of the nearest fire extinguisher, first aid kit, emergency eyewash, emergency shower and telephone when working with chemicals.

HEARING CONSERVATION PROGRAM

1. Check to see if elevated noise levels are present, and as appropriate, review the **Hearing Conservation Program** for the facility before working in those areas.

2. Certain areas may be identified as "**High Noise Areas**". Personnel working in these areas will wear approved hearing protection.

3. When requested by supervisors, employees shall wear approved protectors even if the area is not marked. Employees who are concerned about noise levels should request hearing protection be provided.

4. Personnel will be adequately trained in the use of hearing protection and will be familiar with the hazards related to elevated noise levels.

5. Hearing protection is available to anyone working in areas where elevated noise levels exist.

6. Personnel routinely exposed to elevated noise levels above 85 decibels shall be required to use hearing protection.

7. Remember- people do not get accustomed to loud noises -

THEY LOSE THEIR HEARING!

OCCUPATIONAL HEALTH AND SAFETY

1. The following health hazards may exist in various Grand Lake facilities and/or locations.

a. Asbestos
b. Noise
c. Respirable Dust
d. Silica
e. Welding fumes
f. Chlorine
g. Flammable products
h. Hazardous chemicals

2. Employees will be made aware of any potential hazards before work begins.

3. Noise signs shall be posted in areas where hearing protection is required.

4. Respirators will be used in areas where the presence of respirable dust, silica, hazardous chemicals may exist.

5. Welders will be adequately trained in the risks associated with welding fumes.

6. Adequate ventilation will be provided during welding operations.

7. Inspect the work area for the presence of flammable materials before the work begins. Locate the nearest fire extinguisher.

8. Report all accidents and/or injuries to your supervisor as soon as possible.

MAINTENANCE SHOP SAFETY

Maintenance shop personnel, in addition to the areas outlined below, should pay particular attention to Safety Manual sections on Welding Cutting & Brazing, Cranes & Hoist, Power and Hand Tools, and Lock, Tag & Try procedures.

Radiator Service

1. Be careful when checking the radiator since automotive cooling systems work under pressure. The coolant may be in the boiling range and therefore too hot to check safely. Always observe the following precautions when checking the radiator.

Place wiping cloth over cap and turn it 1/4 turn counter-clockwise. This will permit the escape of pressure.

Caution: If a rumbling noise is heard coming from the radiator, or if coolant spews out from under the cap, close the cap immediately because the coolant is too hot and will boil over violently if pressure is released. The coolant will have to cool down before it can be checked safely.

Remove the cap by turning it counter-clockwise until stop is reached, and then lift it off.

Operate the engine at idle speed when adding water or anti-freeze while the engine is hot. This will allow it to circulate quickly without damage to the engine block. If water is very low or engine is extremely hot, wait for it to cool before adding coolant.

Tire Service

1. Check pressure and inspect tires before inflating them.

2. Protect yourself against blowout when inflating tires. Never squat facing the tire. Stand at one side, so that the fender is between you and the tire, if possible. Use chuck gauge with clip and extension hose.

3. Never leave jack handles or other tools where they can be a tripping hazard.

4. A protective cage or equivalent protection shall be provided for the inflating of truck tires.

Battery Service

1. Do not smoke or permit open flames or sparks near batteries that are being recharged as they emit hydrogen gas, which is explosive. Recharge batteries only in a well ventilated area.

2. When disconnecting a battery always remove the ground cable first in order to prevent sparks if the wrench is accidentally grounded.

3. When installing a battery always attach the ground cable last.

4. Wash acid and corroded particles from hands immediately after performing battery service. Be sure that clothing is free of acid and corroded particles. Acid neutralizer is at town shop.

5. Face shields or other eye protection shall be worn when handling batteries. If acid gets into the eye, promptly rinse the eye thoroughly with water until chemical is completely removed. After a thorough rinsing, cover the eye with a sterile gauze compress and take the injured person to a doctor.

6. Use great care in the storing and handling of electrolyte for dry charge batteries.

7. Follow safe lifting practices when handling batteries. Use only an approved carrier. When lifting batteries in and out of underhood mountings, you can sometimes gain additional leverage by resting your elbows on the fenders.

Lubrication and Maintenance Service

1. To prevent slipping, promptly clean up oil and grease from floors. Never discharge a high pressure grease gun at any part of the body, as grease may penetrate the skin, causing injury.

2. Do not rock cars while they are on a twin post or free wheel lift, as movement may cause enough shifting of the car on the supports to fall off the lift.

3. Do not stand in front of a vehicle when guiding onto a lift or pit. If you do, you may be injured if it does not stop in time.

4. When using floor lift jacks, be sure they are resting on a firm base and made good contact with the car. When chain hoists or jacks are used, vehicles shall be securely blocked before employees go under them.

5. Do not allow anyone to remain in a vehicle being raised on a lift.

6. Do not overload the lift.

7. Keep your hand on the control valve when the lift is being raised or lowered. Do not prop it open.

8. Do not allow anyone to walk under the lift when it is being raised or lowered.

9. Report immediately to your supervisor any faulty operation of the lift. Do not use the lift until the defect has been corrected. A jumpy lift usually means low oil – have it filled or repaired. Tag lift until repaired to warn others.

10. When using the lift, observe the following precautions:

    Center the vehicle over the lift.

    Adjust the adapters to make proper contact with the vehicle.

    Raise the lift slightly off the floor almost making contact with the vehicle.

    Look under the vehicle, making sure that the gas line, muffler, tail pipe, or other parts of the car will not be damaged by contact with the lift.

    Raise the lift until contact is made and begins to rise slightly.

    Look under the vehicle, checking that proper contact is being made, and if satisfactory, continue raising the lift to the proper height.

    When fully raised, inspect contact points to make certain that the vehicle is firmly positioned.

    Do not open the doors of vehicle that is raised on a frame contact lift.

    After lowering, check to insure that there is adequate clearance under the vehicle before moving it off the lift.

    When not in use, the lift shall be lowered completely to avoid accidents.

    Lift areas shall be cleared of objects from prior jobs. Oil absorbent material shall be used to remove excess oil and grease before a new job is started.

11. Vehicles shall be properly positioned and automatic chocks shall be operative on all lifts.

12. Safety legs or pins shall be operative to prevent dropping of lifts in event of pressure failure.

13. Do not work under vehicles or other equipment supported by jacks or chain hoists without protective blocking or stands that will prevent injury if jacks or hoists should fail.

14. Hoods, dump sections of dump trucks and similar movable parts shall be blocked to keep them stationary during repairs. (See Lock Tag & Try section of Safety Manual.)

Air Compressors

1. Turn off the main switch before oiling, wiping, or working on the air compressor.

2. Test safety valve weekly to be sure that it operates properly.

3. Never tamper with the safety valve or controls. All adjustments and repairs should be made by qualified mechanics.

4. Do not pile objects near the compressor, nor hang them above it in such a way that they could fall into the mechanism.

Special Fire Prevention - Protection

1. No petroleum products or solutions containing petroleum shall be poured into any drain or sewer.

2. Never use gasoline for cleaning purposes under any circumstances.

3. Put all oily waste in covered metal containers. Approved and properly marked storage containers shall be provided for waste, oily rags, etc. Empty them frequently to prevent spontaneous combustion.

4. Welding and brazing shall be done away from flammable or explosive substances. Appropriate fire extinguisher shall be located nearby.

5. Smoking shall not be permitted in any maintenance shop area in the vicinity of flammables.

6. The correct type, proper size and adequate number of clearly marked and easily accessible extinguisher shall be provided.

7. Fire exits shall be properly marked and kept clear at all times. During working hours all exit doors must be kept unlocked.

8. Employees shall be instructed in the safe handling of flammables. (See Hazard Section)

9. Only approved and properly marked cans shall be used for falmmable liquids.

10. Fire authorities should be given information about the premises to enable them to respond to an emergency.

11. Employees shall be instructed in evacuation procedures.

What To Do In Case of Fire

1. Know the location of fire fighting equipment and how to use it.

2. Know how to contact the Fire Department. Keep the telephone number in a prominent place.

3. When a fire starts, lose no time in using fire fighting equipment at hand, and try to control the fire before it spreads. Call, or have someone call the Fire Department.

4. When a gasoline spill catches fire, attack the flame at its base. When using a dry chemical or carbon dioxide extinguisher, use a rapid side-to-side motion. Be sure that all of the fire is put out or it will reflash.

5. Notify your supervisor and the Risk Manager as soon as possible after a fire has occurred.

Fire Extinguisher Equipment

1. Put extinguisher in convenient places. Permit nothing to be in front of or on the extinguisher.

2. Check extinguisher periodically to make sure they are filled and in good working order. Inspection date and signature of inspector must be on tag attached to the extinguisher.

3. Check extinguisher nozzle often to make sure they are clean and ready for use.

4. Have extinguisher recharged immediately after use.

Fuel Dispensing Safety

General

1. Good housekeeping shall be maintained in the entire service area.

2. Gasoline dispensing pumps shall be properly labeled.

3. Should a fire occur at the unit while the nozzle is still in the tank, shut off the pump. Do not remove the nozzle until the fire has been put out.

4. Report unsafe gasoline nozzle i.e. faulty automatic shut-off.

5. Smoking is not permitted in any fuel dispensing area.

6. Stand in a safe position at the pump. Do not cross in front of moving vehicles.

7. Before delivering gasoline into the fuel tank make certain the engine is off and correct fuel is selected.

8. Good metallic contact shall be made between the nozzle and tank before filling the tank. Use particular care when topping off, so as to avoid spillage of gasoline.

9. Always replace fuel tank cap immediately after delivery.

10. Be sure hose nozzle is hung securely on the pump after delivery.

11. Keep pump hose exactly placed within island limits so it will not catch on bumpers or fenders.

12. Keep hose, nozzles, and connections in good condition.

13. Report immediately any leakage near the gasoline pump. Do not use the pump until the leak is fixed. This work shall be done only by a qualified mechanic.

14. Fuel spillage on driveways should be reported immediately. If the spill is large enough to create a risk of the fuel reaching drains immediate measures should be taken to stop the flow of the fuel. Dumping sand on and in the way of the flow is recommended.

15. Remove clothing wet with gasoline immediately disposable coveralls are in town shop tool room. Do not go near a heater or open flame wearing gasoline soaked clothing. When the skin has been wet with gasoline, wash the affected part thoroughly with soap and water to prevent skin inflammation.

16. Deliver gasoline into fuel tanks of properly labeled metal containers only. Never deliver gasoline into glass bottles, open containers, or food, drug, or cosmetic containers. The Federal Hazardous Substances Labeling Act requires that any container that is filled with gasoline, kerosene or other hazardous substances must be labeled in an approved manner.

17. Employees shall not siphon gas with a hose or tube, particularly where the mouth is used to create suction.

18. The location of emergency shut-off switch should be clearly marked, and all employees should know where it is and how to use it.

Automatic Nozzles

1. Use only automatic nozzles which have been approved by Underwriters Laboratories, Inc.

2. In situations where the nozzle cannot be secured to prevent it from falling out, remain by the nozzle and fill the tank on manual control.

3. Observe the nozzle frequently while gasoline is being delivered so any mechanical failure will be noticed immediately.

4. Check the automatic nozzle regularly and keep it in good repair.

Receiving and Storing Gasoline

1. Fill pipes of tanks shall be plainly marked by color code, tags, or other methods on the installation to show the contents of the tank. Always take precautions to prevent the mixing of products as a result of delivery into the wrong tank.

2. Keep fill caps tight between deliveries to keep water or dirt from entering. The use of grease on threads will aid in keeping fill caps watertight.

3. Gauge tanks with calibrated sticks in gallons or inches, before ordering, and again before receiving deliveries to be sure the quantity being delivered will not overflow. Be sure also that the correct tank chart is used.

4. Clear fill pipe areas prior to the time of delivery of gasoline. Do not allow parking in those areas where it will interfere with absentee deliveries.

5. Make sure that gasoline vapor discharged from vent pipes does not enter buildings. Do not strike matches or permit other sources of ignition near vent openings. (It is especially important when tanks are being filled because an equal volume of flammable vapor is being discharged into the air through the vents).

6. Report to the immediate supervisor on duty at once if liquid gasoline should discharge from vents at any time.

Vehicle Breakdowns

1. Call your supervisor or Town Shop, Town hall to report breakdown. Give location and description of trouble.

2. If vehicle stalls on roadway, warning triangles (reflectors) are to be placed in a manner conforming with D.O.T. vehicle code.

3. Stalled vehicles are not to be left unattended.

Injuries

1. Report all injuries, regardless of how minor, on the same day they occur.

2. Any serious injury shall be reported to supervisor immediately.

3. Any employee, witnessing an accident, shall immediately assist the injured and arrange for medical treatment if required.

4. In the event a man is caught in hopper or packer: Stop operation of vehicle immediately. Check extent of injury. If help cannot be administered, summon help.

5. Approved forms shall be made out for all personal injuries.

Vehicle Fires

1. For fires in the engine or cab compartments, radio supervisor, Town Shop, Town hall, or 911. Advise them of the fire and location of the truck. Move truck away from any structures. Attempt to put out the fire with the fire extinguisher, if possible to do so without endangering yourself. Maintain radio contact if possible.

OFFICE SAFETY

1. Practice good housekeeping at all times in office areas.

2. Keep cords and other wiring covered so they do not become tripping hazards. Do not overload outlets by connecting too many items.

3. Keep equipment in good repair.

4. Do not block stairs, steps or doorways.

5. Clean up all spills immediately.

6. Use the proper ladder or stool for reaching high places **do not stand on chairs or furniture**.

7. Follow proper lifting techniques when carrying large or awkward materials.

8. Practice sound electrical safety techniques when working with computers, typewriter, photocopiers, etc.

9. Report unsafe situations to your supervisor immediately.

10. Report accidents and injuries immediately to your supervisor.

11. Do not store food in desks, cabinets or other similar areas.

12. Know the location of the nearest fire, fire alarm, and first aid kit.

Tree Trimming Operations

Section 1: Tools and Equipment

1. All tools and equipment shall be properly maintained.

2. Employees shall make daily inspections of all equipment, tools, etc. before using them.

3. Hand saws shall be kept sharp and properly set so they will not jump out of the cut and cause injury.

4. Ramp boards (used to load equipment into trucks) shall be kept smooth sanded and varnished to prevent splintering of boards. (Hinged ramps are recommended.)

5. Proper care of safety lines shall be taken at all times.

   Safety line shall be protected against wetting or dampness. Should it become wet, dry completely before storing.

   Safety lines and hand lines shall be kept in a clean box by themselves. Do not store lines and tools together.

   All ropes and lines shall be kept coiled when not in use and hung in a clean, dry, dark, well ventilated area.

6. Chipper blades shall be kept sharp. (Dull blades cause extra strain on the engine and may cause chippings to clog in the chute).

7. Do not store pop bottles or other items in tool boxes or in the drivers compartment.

Section 2: Fuels

1. Fuels shall be dispensed and stored safely.

2. Stop gasoline powered equipment before fueling and wipe away spills before starting it.

3. Fuels shall be stored in approved flammable liquid containers only.

4. Fuel containers shall never be stored or carried in crew compartments.

Section 3: Personal Protective Equipment (PPE)

1. Appropriate personal protective equipment shall be used and properly maintained.

2. Safety goggle or face shield and hearing protection shall be worn when feeding a chipper.

3. Work gloves shall be worn when roping, handling equipment and tools.

4. Safety equipment such as goggles, hard hats and gloves should be stored where it is readily available. Goggles and face shields should be kept clean, and should be replaced when cloudy or scratched.

5. All personal protective equipment should be clean and sanitary.

6. First aid kits shall be carried on all trucks and kept well supplied.

7. OSHA requires PPE to meet **ANSI Z87.1-2015** standards for eye and face protection.

8. High-visibility clothing for roadway workers must meet **ANSI/ISEA 107-2020 Class II** or III standards.

9. Respiratory protection must comply with updates in OSHA's **1910.134**, emphasizing medical evaluations and fit testing.

Section 4: Work Area Protection

1. ~~1.~~ Traffic cones, barricades, high level warning devices, etc., shall be properly placed in the street according to the MUTCD.(See section on barricades and work area protection for further guidance.)

Section 5: Tree Trimming Operation - General Rules

1. Safe procedures shall be observed when working on trees.

5. Trees shall not be worked in when wet unless in an emergency.

6. When using a ladder, lashing or other tie lines should pass over side rails and the end of the rungs (not over the center of the rungs).

7. Ladders must be placed on sound footing (and not in the bed of a truck).

8. When using straight ladders at trees, to establish proper angle, the foot of the ladder should be moved out of the perpendicular by 1/4 the length of the ladder. If the ladder is 12 feet

long, the foot should be 3 feet out from the base of the tree. Estimate the length of the ladder by counting rungs which are usually 1 foot apart.

9. Tools shall be raised or lowered by means of a hand line or the free end of the safety line.

10. Hand saws should be carried in a scabbard and securely fastened to the climber's belt.

11. A large tree limb that cannot be controlled by hand should have a line or lines attached for controlled lowering before the limb is cut off.

12. The trimmer shall place himself in the tree so that the saw cannot fall against him if it is suddenly released.

13. When using the chain from the bucket always have it attached by a safety line to the bucket.

14. Safety goggle or face shield and ear plugs or muffs shall be worn when operating chain.

15. Always give proper warning when about to drop something out of a tree, such as: "Timber"; "Heads up"; and "Look out below".

16. Not more than two men at a time should be allowed to work near the base of a tree which is being felled.

17. When trees must be cut flush to the ground, it is safest to make the first cut at stump height above the swell of the roots and cut the stump flush with the ground after the tree is down.

18. When felling trees on hillsides, try to drop the tree up the slope (and not down slope nor across the slope).

19. Make sure the area around you is clear before turning to the side with a chain running in your hands.

20. Never leave a saw or any other machine running unattended.

21. When bucking fallen logs on hillsides, wedge logs firmly first and then buck only from the

high side.

22. Pruner poles must be made of non-conductive material and have a non-conductive pull line between the lever arm and the handle. This is a safeguard against electrical shock.

23. Only one person shall feed a chipper at a time. If other employees are available - they should prepare the bush for the person feeding the chipper. Stand to the side when feeding the chipper.

24. Safety s or a face shield and hearing protection shall be worn when feeding the chipper. No loose clothing or gloves with holes shall be worn when chipping.

25. The bush shall be cut small enough so that, if it is drawn into the chipper, it will not cause injury to the operator.

26. Under no circumstances shall tools such as scoops or forks be used to push brush and debris into the chipper. Such practice is extremely dangerous to the operator and the machine.

27. Pneumatic tools must be handled with care so that they will not be activated unexpectedly. Disconnect a pneumatic tool from the airhose before handing it to another person and before leaving it unattended.

28. When edging, a safety shield shall be worn by the operator to prevent rocks from striking him/her in the face. A face shield and shin guards shall always be worn when operating a lawn renovator.

29. To prevent head injuries hard hats shall be worn.

30. Safety goggles or a face shield shall be worn when operating a stump cutter.

MOWING AND TRIMMING OPERATIONS:

1. Employees shall were long pants, hard soled enclosed footwear; short or long sleeve shirts, safety glasses. Shorts are approved to be worn when mowing and

not string trimming.

2. **DO NOT** mow or trim if area is over crowded.

3. When mowing or trimming next to a road right of way or edge of road safety vest shall be worn.

4. When refueling mower or trimmer you shall shut equipment off and let cool 5 minutes before fueling.

5. When mowing on the face of steep slopes always mow up & down never across as this may cause a tipping hazard.

MARINA OPERATIONS:

1. Marina employees shall wear approved clothing, marina shirts, pants, enclosed footwear. Long shorts may be worn as seen fit by marina manager.

2. All marina employees shall have training on how to operate all marine equipment. Training shall be conducted by marina manager and or safety coordinator.

3. Horse play is not allowed and may be grounds for dismissal.

4. Any marina employees engaged in loading or unloading boats from trailers shall wear safety vests if on the town right of way.

5. Refueling of all boats shall be conducted by or over seen by marina manager.

6. Marina employees shall not board or engage in any activity on a slip renter's boat

   while docked at marina.

7. The use of cell phones & pagers are discouraged except in emergency situations.

8. Any marina employee that operates a marina vehicle shall have a valid driver's license and a copy will be on file at town hall.

WATER DEPT:

1. When handling chlorine handle in accordance with the chlorine institutes standards.

2. When changing chlorine cylinders the employee shall have another employee standing by with SCBA on and ready to enter in case of emergency.

3. When using soda ash the employee shall wear appropriate dust or respirator masks,

4. When using truck mounted crane with loads over 800 lb out riggers must be used.

5. Safety vests shall be worn when working on road right of way including meter reading.

6. When leaving shut off keys in valves cones must be put out around key.

7. Any and all water line breaks shall be handles in a prompt and professional manner.

8. All hydrants that are out of service shall be tagged saying **OUT OF SERVICE.**

9. When reading meters be aware of dogs, ice, and other hazards.

10. When installing meters you shall in form Town hall as to where you will be doing the work.

TRENCHING AND SHORING OPERATIONS:

All Town trenching and shoring operations are to be conducted according to OSHA standard 29 CFR part 1926.650 - .652 Subpart P. These standards are contained in a separate more manageable size field manual titled "Construction Standards for Excavations". This handbook should be available and in use by all work groups

whose employees are required to enter excavations, even for short periods of time.

RESPIRATORY PROTECTION PROGRAM

SECTION II. INTRODUCTION

This program will provide Town of Grand Lake employees with the criteria for compliance with the OSHA Respiratory Protection Standard (29 CFR 1910.134)

SECTION III. PURPOSE

It is the responsibility of the Town to provide a safe and healthful workplace for it's employees. In an effort to meet these requirements, all departments will conduct various surveys to determine whether the need for a Respiratory Protection Program exists. The employees who work in selected areas will be covered by this program. This program will dictate what steps must be taken to reduce employees to nuisance dust, respirable dust,

toxic chemicals, etc.

SECTION IV. COVERED EMPLOYEES

The following employee job classifications will be covered by the **Grand Lake Respiratory Protection Program.** These employees were selected based upon workplace observations, total dust , respirable dust, and other known workplace chemical evaluations. Covered employees will be evaluated annually.

The following job classifications have been identified:

1. **Parks and Recreation Pesticide/Herbicide Applicators**

2. **Maintenance personnel who weld periodically**

3. **Maintenance personnel who paint periodically**

4. **Water treatment personnel working with chlorine, soda ash, etc**

7. **Maintenance personal who operate the street sweepers.**

A list of covered employees will be maintained by the respective department. This list will be available in Section IV of this **Grand Lake Respiratory Protection Program**.

SECTION V. PERSONAL PROTECTIVE EQUIPMENT

The selection of respirators is based upon several factors. These factors include but are not limited to workplace air contaminants, employee fit test results, employee comfort and ease of use in the workplace. Employees are fit tested using the "Rainbow Passage". This passage is discussed in Section IX., Fit Testing Procedure and Results. It has been determined through site inspections and surveys that the primary type of respirator required is either Air-Purifying Respirators or Air Supplied Respirators.

Each department will list the types and models of respiratory equipment available at their respective facilities. That pertinent information will be found in this section of the **GrRand Lake Respiratory Protection program.**

SECTION VI. RESPIRATOR CARE AND MAINTENANCE

Respirators containing filters will be changed on a daily or shift basis. Employees will be furnished these type of respirators if they desire. These employees will be responsible for the care and maintenance of these respirators. Employees using respirators will use the following procedure to adequately clean their respirators.

1. Remove used or spent filter.

2. Examine all parts of the respirator (ie. straps, inhalation valve, exhalation valve, etc.)

3. Wash the entire respirator in warm soapy water. The use of a mild disinfectant is recommended.

4. Shake or gently wipe all excess water from the respirator. Allow the respirator to air dry.

5. Re-examine the respirator when installing the new cartridges.

6. Report any damage or defects to your immediate Supervisor.

7. Do not make repairs on respirators.

Additional respirators will be available upon request. These respirators will be inspected monthly. These respirators will be stored in clean, dry locations. These respirators will be stored in their original containers or clean containers. Disposable dust respirators will be discarded at the end of the day or sooner if necessary.
Supervisors will periodically inspect the condition of respirators.
Air supplied respirators will be inspected periodically by qualified individuals.

SECTION VII. EMPLOYEE TRAINING

Grand Junction employees will be adequately trained in the use of Air-Purifying Respirators or Air-Supplied Respirators. These employees will be trained in all aspects of these respirators. During this training session employees will also be fitted with an approved respirator. The ~~results~~result of the fit testing is included in Section X., Fit Testing Procedure and Results. Records of employee training will be kept in this section of the **Grand Junction Respiratory Protection Program.**

A training outline used to discuss Respirators is given below that may be used as a suggested guideline for air purifying and air supplied respirators. It is strongly recommended that a training outline be prepared that is specific for each respective department.

I. INTRODUCTION
- A. Uses
- B. Advantages
- C. Disadvantages
- D. Limitations
- E. Fit Testing
- F. OSHA Eleven Point Program
- G. Employee Qualitative Fit Test

II. TYPES OF RESPIRATORS
- A. Dust
- B. Mist
- C. Fume
- D. Organic Vapor
- E. Supplied air

III. APPLICATION
- A. Nuisance Dust
- B. Total Dust
- C. Respirable Dust
- D. Silica
- E. Welding Fumes
- F. Degreasing vapors
- G. Acids/Bases
- H. Toxic chemicals

IV. ADVANTAGES

V. DISADVANTAGES

VI. LIMITATIONS
- A. Air purifying
- B. Air supplied

VII. FIT TESTING A. Negative Test B. Positive Test C. Banana Oil Test D. Irritant

Smoke Test

VIII. OSHA ELEVEN POINT PROGRAM
- A. Written program
- B. Equipment selection
- C. Care and Maintenance
- D. Medically fit
- E. Knowledge of hazards
- F. Recordkeeping

IX. EMPLOYEE FIT TEST EXERCISE
- A. Irritant Smoke Test
  1. Fit mask
  2. Close eyes
  3. Negative test
  4. Positive test
  5. Read "Rainbow Passage"

X. QUESTIONS AND ANSWERS
- A. Equipment
- B. Fit tests
- C. Applications
- D. Advantages/disadvantages

SECTION VIII. FIT TESTING PROCEDURE AND RESULTS

During the training phase of the **Grand Lake Respiratory Protection Program,** employees will receive fit testing of their respective respirators. Employees will be assured of a positive fit.

The following procedure will be used:

1. Properly don an air purifying respirator
2. Conduct a Negative Pressure Test
3. Conduct a Positive Pressure Test
4. Close their eyes
5. Irritant smoke will be passed over the respirator
6. Employees will read the "Rainbow Passage"
7. If a leak is found, the test will be repeated
8. After the test a form will be completed describing the test and the type of respirator that was used for the test.

The "Rainbow Passage" is a phrase that is used to show that an adequate seal can be maintained when wearing a respirator. The passage requires the jaw to move various positions that could result in a leak. The employee will repeat the "Rainbow Passage" while wearing a respirator during the test. The "Rainbow Passage" reads as follows:

> When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long, round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach, his friends say he is looking for the pot of gold at the end of the rainbow.

Copies of each employees fit test results will be kept in this section of the **Grand Lake Respiratory Protection Program.** A sample form has been included at the end of this section.

GRAND LAKE RESPIRATOR FIT TEST

1. DATE:_____

2. EMPLOYEE TESTED:_____

3. EMPLOYEE SSN:_____

4. SIGNATURE:_____

5. TYPE OF RESPIRATOR:_____

6. RESPIRATOR MODEL:_____

7. POSITIVE FIT TEST:_____

8. NEGATIVE FIT TEST:_____

9. QUALITATIVE FIT TEST:_____
(IRRITANT SMOKE)

10. TEST CONDUCTED BY:_____

11. SIGNATURE:_____

SECTION X. RECORDKEEPING REQUIREMENTS

There a several records that shall be maintained in accordance with 29 CFR 1910.134, OSHA Respiratory Protection Standard. Those records are listed below:

1.Documentation to demonstrate employee medical fitness to wear a respirator.

2. Care and maintenance schedule of all air purifying and air supplied respirators.

3. Proof of training.

4. Employee fit test results.

5. Documentation to show that annual reviews have been made on the Grand Lake Respiratory Protection Program.

EMPLOYEE RESPIRATORY PROTECTION PROGRAM ACKNOWLEDGEMENT:

It has been shown that on this day you have received the following information regarding the **Grand Lake Respiratory Protection Program:**

1. Respirator Training

2. Respirator Fit Test

3. Respirator Examination

4. Personal copy of the **Grand Lake Respiratory Protection Program**

It is understood that employees covered by this program will comply with all aspects of the **Grand Lake Respiratory Protection Program.** Covered employees shall maintain a personal copy of this program and use it when necessary. Failure to follow all sections of the **Grand Lake Respiratory Protection Program** may lead to disciplinary action up to and including termination.

This form shall be maintained in your training records.

EMPLOYEE RESPIRATORY PROTECTION PROGRAM ACKNOWLEDGEMENT

Employees Signature . Date

_____/___/___

LPG (LIQUID PROPANE GAS)

Propane is used in a wide variety of operations, including fueling vehicles, as a heat sources for heating or melting materials, weed burning operations, cutting, soldering, and heating buildings or equipment.

BASIC PRECAUTIONS

1. The material is extremely flammable. DO NOT smoke while using LPG.
2. Operate in only well ventilated areas.
3. Never puncture the container.
4. Keep the container away from sources of flame or heat.
5. Never incinerate the container.
6. Keep the container away from exposure to heat sources.
7. When changing propane cylinders, make sure that tank valves are closed before breaking connections. Check for leaks after change is complete using a soapy water solution.
8. Have a fire extinguisher or other firefighting equipment nearby when using propane.
9. Have a first kit nearby when using .
10. Use chemical goggles and leather gloves and cover extremities when working with propane, especially when lighting a pilot or burner on a propane system or changing system connections. Use of a Face shield is recommended while lighting pilot lights, especially when re-lighting after a pilot light has gone out.
11. Store excess cylinders securely and in a manner that protects the valve assembly from accidental blows. (Storage of liquefied petroleum gases shall be stored and handled in compliance with NFPA No. 58.[12] Taken from the “Handbook of COMPRESSED GASES second edition, Compressed Gas Association, Inc.)
12. NFPA hazard labels should be placed all cylinders. (Part of 29 CFR 1910.1200)
13. Never store excess cylinders near walkways, exits, and general path of travel.
14. Never store excess cylinders under stairs, decks, ramps, etc.
15. Never store cylinders together with oxygen sources or strong oxidants.
16. Always secure the valve opening with a cap or similar device when storing excess cylinders.
17. Prior to each use, inspect cylinders for signs of damage and/or wear.
18. Damaged cylinders must be taken out of service and replaced or repaired.
19. Periodically check cylinders to assure that they are inspected and approved for use. This inspection should also be performed each time a cylinder is brought on-site from an outside source.
20. Never attempt to repair a propane cylinder. Refer all repairs to qualified propane service personnel.

21. Never refill a cylinder that has exceeded the certification date. (5 years).
22. Never improperly dispose of cylinders. Return them to an authorized propane dealership for proper disposal.
23. Immediately report unsafe conditions to your Supervisor.

GENERAL SAFE WORK PRACTICES

These work practices shall be observed when using propane fired equipment:

1. All employees using propane equipment must be adequately trained, and must carefully read and understand the Operator's Manual before using the equipment:
   - Read the igniting procedure before initiating the firing operation.
   - Learn the warning steps if the equipment does not ignite properly
   - Be familiar with the specific purge cycles for each pilot light system.
2. Inspect the equipment before use.
3. Be sure that the equipment is adequately maintained.
4. Become familiar with the ~~MSDS~~ SDS that applies to .
5. Stay alert for the smell of .
6. Never work on powered equipment near energized electric equipment.
7. Never refuel or re-charge propane cylinders near flames or excessive heat.
8. If you have problems with a pilot light, immediately shut off the equipment and refer to the operator's manual or contact your Supervisor.
9. Never force any gas controls.
10. If you cannot operate knobs, switches, valves, etc. on a propane system, contact your fleet maintenance or your Supervisor for assistance.
11. Do not tamper and/or alter any controls, valves, switches, etc.
12. Never use tools to turn valves, knobs, switches, etc. on a propane system.
13. Faulty propane equipment must be serviced immediately by qualified service personnel.
14. Be sure that NFPA hazard labels are attached to all cylinders.

HEALTH CONSIDERATIONS

1. Propane can be both a heat and cold hazard to employees. Note that escaping propane gas can cause sudden freezing of exposed skin.
2. Know the basic first procedures for coming in contact with propane.

2.

3. Be sure that an ~~MSDS~~ SDS on propane is available in the area of operation.
4. Wear chemical goggles when working with propane.
5. Wear leather gloves and other protective clothing to cover extremities when working with propane.
6. Report injuries immediately.
7. Use propane in adequately ventilated work areas.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

1. Wear chemical goggles when working with gas.
2. Wear leather gloves when working with gas.
3. Cover extremities with long sleeves when working with gas.
4. Wear a face shield if re-lighting a unit which has recently gone out.

EMERGENCY PROCEDURES

1. If you smell gas or see escaping propane gas, shut the equipment off.
2. If you smell gas or see escaping propane gas, never touch al switches, light matches or use al or electronic equipment.
3. If you smell gas or see escaping propane gas, shut off the main fuel supply.
4. If you smell gas or see escaping propane gas, call 911, secure the area from approach by the public or other workers, and contact your supervisor.
5. If you smell gas or see escaping propane gas, be cautious about creating sparks from static or ferrous metals

Cellular Phone Use Policy in Town Vehicles

~~Distracted drivers are more likely to make a driving error or react too slowly. As more Town drivers are using cellular phones, it is important that they be used safely and courteously. Currently, there is no law or Town policy against using a cellular phone while driving, but you could be charged with dangerous or careless driving if you cause an accident while using one, and cellular phone use is frequently cited by other drivers as an annoyance or hazard because distracted cell phone users often behave more erratically. It is important both for safety and for the image of Town drivers that common sense and courtesy be followed in using Cellular phones while in Town of Grand Lake vehicles.~~

~~**Guidelines for Cellular Phone Use in Vehicles:**~~

- ~~Whenever possible, Uuse your cellular phone when parked, or have a passenger use the phone.~~
- ~~If your position requires frequent cell phone use in a vehicle, you should have voice mail service and hands-free equipment for your phone, and use both to avoid distractions.~~
- ~~If your phone rings when you are driving -- especially during hazardous conditions -- let your cellular voice mail service take the call and listen to the message later when you are parked, or pull over before answering, if traffic conditions permit.~~
- ~~Make sure the phone is easy to see and reach: Place your cellular phone in your vehicle where you can grab it without removing your eyes from the road.~~
- ~~Suspend conversations during hazardous driving conditions or situations.~~
- ~~Let the person you are speaking to know you are driving and that the call may need to be suspended at any time.~~
- ~~Do not take notes or look up phone numbers while driving. As a driver, your first responsibility is to pay attention to the road. Common sense dictates you do not read, look up an address or attempt to write or take notes while driving.~~
- ~~Attempt to dial and place all calls when you are not moving.~~

- When possible, plan your calls before you begin your trip, or call when your vehicle is parked at a stop sign or red light. If you absolutely need to dial while driving, assess the traffic and dial only a few numbers at a time.
- Learn and use the pre-programmed number dial features of your phone. Practice using this feature for commonly dialed numbers *before* driving so you are familiar with the procedures.
- Do not engage in stressful or emotional conversations while driving. A stressful or emotional phone conversation while driving is distracting and potentially dangerous. If necessary, suspend the phone conversation. Use your cellular phone to call for help or to help others in emergencies. Your cellular phone lets you be a "good Samaritan" in the community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 911 and give the exact location and information to fire, police or ambulance personnel.

SAFETY MANUAL ACKNOWLEDGEMENT

Any intentional disregard of this safety manual may be grounds for review by the board and proper disciplinary action taken.

I _____ having received a copy and reviewed,

understanding the safety policies in the Town of Grand Lake Safety Manual and will abide by said manual.

EMPLOYEE _____

SUPERVISOR _____

OR

SAFETY COORDINATOR _____

INDEX

—A—

—B—

—C—

—D—

—E—

—F—

—G—

—H—

—L—

—M—

—O—

—P—

—S—

—T—

—V—

—W—