

SUMMIT COUNTY ENGINEER'S SAFETY MANUAL

Policy

It is the policy of the Summit County Engineer's Office to provide and maintain safe and healthful working conditions for all employees. The Office will implement and integrate a safety program in keeping with this comprehensive safety plan. Appropriate levels of training will be used to enable the workforce to perform tasks safely and to learn safety skills to avoid injury. Employees are expected to question conditions that appear unsafe and report any substandard condition to supervisors.

Through a comprehensive safety program and a positive constructive attitude toward our safety responsibilities, we can achieve the goal of a safe work environment.

Purpose

The purpose of this Safety Plan (the "Plan") is to provide guidelines that promote a safe and healthy work environment for all individuals employed by the Summit County Engineer. Compliance with the provisions of this Plan is mandatory for all persons employed Summit County Engineer's Office. Any deviation from safety requirements outlined in this or other pertinent safety publications will be accomplished only by execution of waiver requirements as approved by appropriate personnel as outlined in this Plan.

This Plan is subsidiary to, complimentary with, and designed to satisfy requirements of federal, state, and local safety regulations. This Plan supersedes any other plan or document previously developed.

Employee Responsibility

Employees are required, as a condition of employment, to exercise due care in the course of their work to prevent injuries to themselves and to their fellow workers and to conserve materials. Each employee will:

- Report all accidents to his/her supervisor.
- Be certain instructions are completely understood before starting work and all safety and health requirements are complied with prior to work activity.
- Be individually responsible to keep themselves, fellow employees, and equipment free from mishaps.
- Keep work areas clean and orderly at all times.
- Learn to lift and handle materials properly.
- Avoid engaging in horseplay and avoid distracting others.
- Review safety educational materials posted or distributed in work areas.
- Know how and where medical help may be obtained.

- Refrain from damaging destroying any warning or safety device, or interfere in any way with another employee's use of them.
- Report all injuries, no matter how minor, to his/her supervisor.
- Bring a doctors release when returning to work after an injury or illness.
- Be responsible to see that visitors follow the safety rules prescribed by administrators, safety personnel, and other qualified staff.
- Acknowledge understanding of training, in writing and be responsible to ask questions to ensure understanding.
- Follow prescribed procedures during an emergency

Disciplinary Action

When violations of policies occur, corrective action will be taken. Disciplinary action, consistent with union contracts or the policies of Summit County, up to and including termination, may be imposed when any employee causes injury to himself/herself or others or destroys or damages equipment either by willfully violating work rules, or by disregarding traffic regulations or by demonstrating an attitude of indifference or defiance.

PERSONAL PROTECTIVE EQUIPMENT PROGRAM

Introduction

The objective of the Personal Protective Equipment (PPE) Program is to protect employees from the risk of injury by creating a barrier against workplace hazards. Personal protective equipment is not a substitute for good engineering or administrative controls or good work practices, but should be used in conjunction with these controls to ensure the safety and health of employees. Personal protective equipment will be provided, used, and maintained in circumstances where it has been determined that its use is required and that such use will lessen the likelihood of occupational injury and/or illness. This program addresses eye, face, head, foot, and hand protection. Separate programs exist for respiratory and hearing protection.

The Summit County Engineer's Personal Protective Equipment Program includes:

- Employee Responsibilities.
- Employee Training.
- Record keeping requirements.

Employee Responsibility

The PPE user is responsible for following the requirements of the PPE Program and must:

- Attend required training sessions.
- Wear PPE as required.
- Care for, clean, and maintain PPE as required.
- Inform a supervisor of the need to repair or replace PPE.

Protective Devices

All personal protective clothing and equipment will be of safe design and construction for the work to be performed and shall be maintained in a sanitary and reliable condition. Only those items of protective clothing and equipment that meet NIOSH (National Institute for Occupational Safety and Health) or ANSI (American National Standards Institute) standards will be procured or accepted for use. Newly purchased PPE must conform to the updated ANSI standards which have been incorporated into the OSHA PPE regulations.

Careful consideration will be given to the fit of PPE. Protective devices will be generally available in a variety of sizes. Care should be taken to ensure that the right size is selected.

Eye and Face Protection

Prevention of eye injuries requires that all persons who may be in eye hazard areas wear protective eyewear. This includes employees, visitors, researchers, contractors, or others passing through an identified eye hazard area. To provide protection for these personnel, All areas must maintain a sufficient quantity of adequate goggles and/or plastic eye protectors. If personnel wear personal glasses, they shall be provided with a suitable eye protector to wear over them. Suitable protectors shall be used when employees are exposed to hazards from flying particles, molten metal, acids or caustic liquids, chemical liquids, gases, or vapors, bioaerosols, or potentially injurious light radiation.

- Wearers of contact lenses must also wear appropriate eye and face protection devices in a hazardous environment.
- Goggles and face shields shall be used when there is a hazard from chemical splash.
- Face shields shall only be worn over primary eye protection (safety glasses or goggles).
- Equipment fitted with appropriate filter lenses shall be used to protect against light radiation. Tinted and shaded lenses are not filter lenses unless they are marked or identified as such.

Prescription Safety Eyewear

OSHA regulations require that each affected employee who wears prescription lenses while engaged in operations that involve eye hazards shall wear eye protection that incorporates the prescription in its design, or shall wear eye protection that can be worn over the prescription lenses (goggles, face shields) without disturbing the proper position of the prescription lenses or the protective lenses.

Emergency Eyewash Facilities

Emergency eyewash facilities meeting the requirements of ANSI Z358.1 will be provided in all areas where the eyes of any employee may be exposed to corrosive materials. All such emergency facilities will be located where they are easily accessible in an emergency. Head Protection Head protection will be used by all employees and contractors engaged in construction and other miscellaneous work. Head protection is also required to be worn by engineers, inspectors, and visitors at construction sites when hazards from falling or fixed objects or electrical shock are present.

Foot Protection

Safety shoes shall be worn in the shops, warehouses, maintenance garages, and other areas as determined by Safety Coordinator. All safety footwear shall comply with ANSI standards.

Hand Protection

Suitable gloves shall be worn when hazards from chemicals, cuts, lacerations, abrasions, punctures, burns, biologicals, and harmful temperature extremes are present. Glove selection shall be based on performance characteristics of the gloves, conditions, durations of use, and hazards present. Employees should read instructions and warnings on chemical container labels and MSDSs (Material Safety Data Sheets) before working with any chemical. Recommended glove types are often listed in the section for personal protective equipment.

Cleaning and Maintenance

It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. PPE should be inspected, cleaned, and maintained at regular intervals so that the PPE provides the requisite protection. Personal protective equipment should not be shared between employees until it has been properly cleaned and sanitized. PPE will be distributed for individual use whenever possible. It is also important to ensure that contaminated PPE which cannot be decontaminated is disposed of in a manner that protects employees from exposure to hazards.

Training

Any worker required to wear PPE shall receive training in the proper use and care of PPE. Periodic retraining shall be offered to both the employees and supervisors, as needed. The training shall include, but not necessarily be limited to, the following subjects:

- When PPE is necessary to be worn.
- What PPE is necessary?
- How to properly don, doff, adjust, and wear PPE.
- The limitations of the PPE.
- The proper care, maintenance, useful life and disposal of the PPE.

After the training, the employees shall demonstrate that they understand the components of the PPE Program and how to use PPE properly, or they shall be retrained.

Record Keeping

Written records shall be kept of the names of persons trained, the type of training provided, and the dates when training occurred.

RESPIRATORY PROTECTION PROGRAM

Introduction

It is the policy of the SCE to provide employees with a safe and healthful working environment. This is accomplished by utilizing facilities and equipment that have all feasible safeguards incorporated into their design. When effective engineering controls are not feasible, or when they are being initiated, protection shall be used to ensure personnel protection.

This program does not apply to contractors as they are responsible for providing their own respiratory protection programs and respiratory protective equipment.

Responsibilities

Medical Provider (Health Clinic)

An appropriate healthcare provider will establish medical evaluation and surveillance procedures and review the health status of all personnel who may be required to wear respiratory protective equipment in the completion of their assigned tasks.

Respirator Wearers

It is the responsibility of each respirator wearer to wear his/her respirator when and where required and in the manner in which they were trained. Respirator wearers must report any malfunctions of the respirator to his/her supervisor immediately. The respirator wearer must also guard against mechanical damage to the respirator, clean the respirator as instructed, and store the respirator in a clean, sanitary location.

Others

Personnel, such as employees, inspectors, and visitors, who must enter an area where the use of respiratory protective equipment is required, even when their stay time in the area may be short, shall be provided with and use appropriate equipment, including instructions regarding use and limitations. Personnel shall be fit tested and medically qualified to wear the respirator being issued prior to entry to the site. Contractors are required to develop and implement a respiratory protection program for their employees who must enter into or work in areas where exposure to hazardous materials cannot be controlled or avoided. This program must meet OSHA regulations and include issuance of respirators, medical evaluations, fit testing and training.

Respirator Use

Respiratory protection is authorized and issued for the following personnel:

- Workers in areas known to have contaminant levels requiring the use of respiratory protection or in which contaminant levels requiring the use of respiratory protection may be created without warning (e.g., emergency purposes such as hazardous material spill responses).
- Workers performing operations documented to be health hazardous and those unavoidably required to be in the immediate vicinity where similar levels of contaminants are generated.
- Workers in suspect areas or performing operations suspected of being health hazardous but for which adequate sampling data has not been obtained.

Respirator Selection

Selection of the proper respirator(s) to be used in any work area or operation at SCE will be made only after a determination as to the real and/or potential exposure of employees to harmful concentrations of contaminants in the workplace atmosphere. This evaluation will be performed prior to the start of any routine or non-routine tasks requiring respirators. Respiratory protective devices will be selected by the Safety Coordinator or designee.

Respirator Training

Respirator users and their supervisors will receive training on the contents of the SCE Respiratory Protection Program and their responsibilities under it. They will be trained on the proper selection and use, as well as the limitations of the respirator. Training will also cover a proper fit before use and how to determine when a respirator is no longer providing the protection intended.

The Safety Coordinator or designee will provide initial training of respirator wearers in the use, maintenance, capabilities, and limitations of respirators. Retraining will be given annually thereafter and only upon successful completion of the medical evaluation.

The training program will include the following:

- Nature and degree of respiratory hazard
- Respirator selection, based on the hazard and respirator capabilities and limitations
- Donning procedures and fit tests including hand's-on practice
- Care of the respirator, e.g., need for cleaning, maintenance, storage, and/or replacement
- Use and limitations of respirator

Respirator training will be properly documented and will include the type and model of respirator for which the individual has been trained and fit-tested.

Maintenance and Issuance of Respirators

Maintenance

Maintenance of respiratory protective devices involves a thorough visual inspection for cleanliness and defects (i.e., cracking rubber, deterioration of straps, defective exhalation and inhalation valves, broken or cracked lenses, etc.). Worn or deteriorated parts must be replaced prior to reissue. No respirator with a known defect may be reissued for use. No attempt may be made to replace components, make adjustments or make repairs on any respirator beyond those recommended by the manufacturer. Under no circumstances may parts be substituted as such substitutions may invalidate the approval of the respirator. Any repair to reducing or admission valves, regulators, or alarms will be conducted by either the manufacturer or a qualified trained technician.

Cleaning of Respirators

All respirators in routine use must be cleaned and sanitized on a periodic basis. Respirators used non-routinely must be cleaned and sanitized after each use and filters and cartridges replaced. Routinely used respirators

must be maintained individually by the respirator wearer. Replacement cartridges and filters may be obtained by contacting Safety Coordinator.

Cleaning and disinfection of respirators must be done frequently to ensure that skin-penetrating and dermatitis-causing contaminants are removed from the respirator surface. Respirators maintained for emergency use or those used by more than one person must be cleaned after each use by the user.

The following procedure is recommended for cleaning and disinfecting respirators:

- Remove and discard all used filters, cartridges, or canisters.
- Wash face piece and breathing tube in a cleaner-disinfectant solution. A hand brush may be used to remove dirt. Solvents which can affect rubber and other parts may not be used.
- Rinse completely in clean, warm water.
- Air dry in a clean area in such a way as to prevent distortion.
- Clean other respirator parts as recommended by the manufacturer.
- Inspect valves, head straps, and other parts to ensure proper working condition.
- Reassemble respirator and replace any defective parts.
- Place in a clean, dry plastic bag or other suitable container for storage after each cleaning and disinfection.

Storage

After inspection, cleaning, and any necessary minor repairs, store respirators to protect against sunlight, heat, extreme cold, excessive moisture, damaging chemicals or other contaminants. Respirators placed at stations and work areas for emergency use shall be stored in compartments built for that purpose, shall be quickly accessible at all times and will be clearly marked. Routinely used respirators, such as half-mask or full-face air-purifying respirators, shall be placed in sealable plastic bags. Respirators may be stored in such places as lockers or tool boxes only if they are first placed in carrying cases or cartons. Respirators shall be packed or stored so that the face piece and exhalation valves will rest in a normal position and not be crushed.

Emergency use respirators shall be stored in a sturdy compartment that is quickly accessible and clearly marked.

LOCKOUT/TAGOUT GUIDELINES

Introduction

This program outlines the purpose, authorization, rules, and techniques to be utilized by SCE employees on a daily basis to guard against the unexpected energizing, start-up, or release of stored energy which could cause injury. It is the duty of each employee to become familiar with the contents of this program and ensure compliance with its procedures.

Purpose

The purpose of this program is to establish procedures for affixing appropriate lockout or tagout devices to energy-isolating devices, and to otherwise disable machines or equipment to prevent unexpected energizing, start-up or release of stored energy in order to prevent injury to employees.

Definitions

Affected Employee: An employee whose job requires them to operate or use a machine or piece of equipment on which servicing is being performed under lockout or tagout, or whose job requires them to work in an area in which such servicing or maintenance is being performed.

Authorized Employee: An authorized employee is a person who locks or implements a tagout system procedure on machines or equipment to perform the servicing or maintenance on that machine or equipment. An authorized employee and an affected employee may be the same person when the affected employee's duties also include performing maintenance or service on a machine or piece of equipment which must be locked, or a tagout system implemented.

Energy Source: Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Lockout: The placement of a lockout device on an energy-isolating device, in accordance with an established procedure, ensuring that the energy- isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout Device: A device that utilizes a positive means, such as a lock, to hold an energy-isolating device in the safe position and prevent the energizing of a machine or piece of equipment.

Primary Authorized Employee: The authorized employee who has been vested with responsibility for a set number or group of employees performing service or maintenance on machines or equipment subject to lockout or tagout procedures.

Servicing and/or Maintenance: Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment, and making adjustments or tool changes where the employee may be exposed to the unexpected energizing or start-up of the equipment or release of hazardous energy.

Tagout: The placement of a tagout device on an energy- isolating device, in accordance with an established procedure, to indicate that the energy-isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Responsibilities

Employees

Site and equipment-specific procedures for energy isolation will be maintained. If an energy-isolating device is capable of being locked out, the authorized employee shall utilize lockout, unless a department head or the Safety Coordinator can demonstrate that utilization of a tagout system will provide full employee protection.

When a tagout device is used on an energy-isolating device which is capable of being locked out, the tagout device shall be attached at the same location that the lockout device would have been attached. Lockout devices used for the implementation of this program shall be accompanied by a standard tag.

Lockout devices shall be substantial enough to prevent removal without the use of excessive force or unusual techniques.

Tagout devices, including their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal. Tagout device attachment means shall be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds and having the general design and basic characteristics of being at least equivalent to a one-piece, all-environment-tolerant nylon cable tie.

Safety Coordinator

The Safety Coordinator or his/her designated representative shall conduct periodic inspection of the energy control procedure at least annually to ensure that the procedure and the requirements of 29CFR1910.147 are being followed.

Supervisors

Supervisors or his/her designated representative shall be responsible to enforce the practices and procedures established through instruction and progressive discipline if required.

Training

The SCE's office will provide training to ensure that the purpose and function of the energy control program are understood by employees. Through training, employees will be required to possess the knowledge and skills required for safe application, usage, and removal of energy controls. Training shall include the following:

- Each authorized employee shall receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.
- Each affected employee shall be instructed in the purpose and use of the energy control procedure.
- All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the prohibition relating to attempts to restart or re-energize machines or equipment which are locked-out or tagged-out.
- Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment or process that presents a new hazard, or when there is a change in energy control procedures. Retraining shall establish employee proficiency and introduce new or revised control methods and procedures as necessary. The heads of departments or their designated representatives shall certify that employee training has been accomplished and is being kept up-to-date. The certification shall contain each employee's name and dates of training.

Techniques

Implementation of the lockout or tagout system shall be performed only by authorized employees. Affected employees shall be notified by heads of departments, or their designated representatives, of the application and removal of lockout or tagout devices. Notification shall be given before the controls are applied, and after they are removed from the machine or equipment.

Outside Personnel (Contractors, etc.)

Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this program, the designated SCE representative and the outside employer shall inform each other of their respective lockout or tagout procedures. The designated SCE representative shall ensure that his/her personnel understand and comply with restrictions and prohibitions of the outside employer's energy control procedures.

ELECTRICAL SAFETY

Purpose

The Electrical Safety program is designed to prevent electrically related injuries or property damage. This program also provides for proper training of maintenance employees to ensure they have the requisite knowledge and understanding of electrical work practices and procedures. Only employees qualified in this program may conduct adjustment, repair or replacement of electrical components or equipment.

Responsibilities

Management

Management will:

- Provide training for qualified and unqualified employees pursuant to Section 5.4.
- Conduct inspections to identify electrical safety deficiencies.
- Guard or correct all electrical deficiencies promptly.
- Ensure all new electrical installations meet codes and regulations.

Employees

Employees must:

- Report electrical deficiencies immediately.
- Not work on electrical equipment unless authorized and trained.
- Properly inspect all electrical equipment prior to use.

Hazard Control

Protective Equipment

- Qualified employees will wear electrically rated safety shoes/boots when required.
- All tools used for electrical work shall be properly insulated.
- Electrical rated gloves shall be available for work on electrical equipment.
- Electrically rated matting will be installed in front of all distribution panels in electric utility rooms when necessary.

Definition of Terms

Qualified Worker: An employee trained and authorized to conduct electrical work.

Unqualified: Employees who have not been trained or authorized by management to conduct electrical work.

Training

Training for Qualified Employees will include specific equipment procedures and requirements of Electrical Safety, 29 CFR 1910.331 to 1910.339

Personal Protective Equipment

Employees working in areas where the potential contact with exposed electrical sources is present and likely, will be provided and shall use [Personal Protective Equipment](#) (PPE).

Warnings and Barricades

Warnings and barricades shall be employed to alert unqualified Employees of the present danger related to exposed energized parts.

The following rules apply:

- Safety signs, warning tags, etc., must be used to warn Unqualified Employees of the electrical hazards present, even temporarily, that may endanger them.
- Non-conductive barricades shall be used with safety signs to prevent Unqualified Employees access to exposed energized parts or areas.

COMPRESSED GASES IN CYLINDERS

Policy

Users of compressed gases must be familiar with the pertinent equipment and the characteristics of the gases. The Safety Coordinator will have information available on all of the gases permitted to be used.

Responsibilities

Each SCE supervisor will:

- Ensure that SCE policies are enforced and good safe work practices are used.
- Provide for and require adequate instruction in the use and maintenance of gas cylinders by all employees.
- Screen requests for all compressed gases.

Each SCE employee will:

- Perform all work with compressed gases in accordance with SCE policies and good safe work practices.
- Inform supervisor of hazardous or potentially hazardous conditions or practices.

The Safety Coordinator:

- Ensures that SCE policies are enforced and good safe work practices are carried out.
- Assists, advises and provides training as necessary.
- Assists, advises and instructs personnel in the care and handling of controlled gases and ensures they have a list of controlled gases readily available at all times.

Stockroom

All stockroom employees will receive instruction from the Safety Coordinator on the care and handling of all compressed gases.

HEARING CONSERVATION PROGRAM

Introduction

Worker exposure to noise of sufficient intensity and duration may result in hearing damage. Noise-induced hearing loss rarely results from just one exposure; it can progress unnoticed over a period of years. Initial noise-induced hearing loss occurs at the higher frequencies where the consonant portion of speech is found, making communications difficult.

Policy

It is the policy of the Summit County Engineer (SCE) to provide employees with a safe and healthful working environment. This is accomplished by utilizing facilities and equipment that have feasible safeguards incorporated into their design. When effective engineering controls are not feasible, or when they are being initiated, administrative controls will be used when and where possible followed by the use of personal protective equipment. The primary goal of the SCE Hearing Conservation Program is to reduce, and eventually eliminate hearing loss due to workplace noise exposures.

The program includes the following elements:

- Work environments will be surveyed to identify potentially hazardous noise levels and personnel at potential risk.
- Work environments that contain or equipment that produces potentially hazardous noise should, wherever it is technologically and economically feasible, will be modified to reduce the noise level to acceptable levels.
- Where engineering controls are not feasible, administrative controls and/or the use of hearing protective devices will be employed.
- Periodic hearing testing will be conducted to monitor the effectiveness of the hearing conservation program. Early detection of temporary threshold shifts will allow further protective action to be taken before permanent hearing loss occurs.
- Education is vital to the overall success of a hearing conservation program. An understanding by employees of the permanent nature of noise-induced hearing loss, SCE hearing conservation program and the employee's responsibilities under the program are all essential for program effectiveness.

Exposure Levels

The SCE is aware that excessive noise exposure is a potential cause of hearing loss. The following table identifies the noise exposure limits referred to as threshold limit values (TLV):

| Duration per day, hours | Sound level (dBA) |
|-------------------------|-------------------|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1½ | 102 |
| 1 | 105 |
| ½ | 110 |
| ¼ or less | 115 |

When the sound levels listed above are exceeded, feasible administrative or engineering controls will be instituted.

If the controls fail to reduce the sound levels to within those listed above, hearing protection will be provided and used to reduce the sound levels to an acceptable level. In addition, OSHA requirements dictate that whenever employee noise exposures equal or exceed an 8-hour time-weighted average (TWA) of 85 dBA, slow response, a continuing effective hearing conservation program shall be instituted.

Responsibilities

The Safety Coordinator is responsible for developing, implementing, and administering the Hearing Conservation Program.

Baselines and Annual Exams

An appropriate healthcare provider will conduct baseline and annual audiograms for new employees who may be assigned to tasks with potential exposure to elevated levels of noise. The healthcare provider will also schedule and conduct audiograms on an annual basis for employees exposed to sound levels greater than or equal to 85 dBA. The healthcare provider is responsible for notifying the Safety Coordinator, of all employees who experience significant changes in hearing (standard threshold shifts) in order that follow-up investigations may be conducted.

Training Activity

Employees are responsible for wearing and maintaining hearing protective devices as instructed. Employees exposed to excessive levels of noise must also participate in annual training programs and the medical surveillance program, which includes audiometric testing.

Personnel Monitoring

Determination of the noise exposure level will be accomplished using calibrated noise dosimeters. Each employee to be monitored will have a dosimeter placed on him/her at the beginning of his/her normal work shift with the microphone placed in the "hearing zone". The dosimeter will be worn for the full duration of the work shift while the employee performs his/her normal work routine. At the end of the work shift, the dosimeter will be removed and information printed out as soon as possible. Background information will be collected from each employee detailing job description, unusual job activities, etc., for the time period sampled. An employee whose noise exposure equals or exceeds 85 dBA on an 8-hour TWA will be referred to the Occupational Health Clinic for inclusion in the Hearing Conservation Medical Surveillance Program.

Re-monitoring of Hazardous Noise Areas

All areas where noise levels equal or exceed 85 dBA shall be remonitored at least every two years. Employees who work for extended periods of time (>2 hours) in the high noise areas and where their 8-hour TWA equals or exceeds 85 dBA will be monitored every year to determine their personal noise exposure. Whenever an employee exhibits a standard threshold shift, as determined by an appropriate healthcare provider, the employee's work place shall be remonitored to identify and ameliorate the cause.

Re-monitoring Due to Changes

Any area with noise levels that equal or exceed 85 dBA shall also be remonitored whenever a change in production process, equipment, or controls increase the noise exposure such that additional employees are exposed to noise levels at or above 85 dBA on a time-weighted average basis. Areas where the noise levels have dropped below 85 dBA due to alterations in equipment, controls or process changes shall be eliminated from the monitoring program.

Noise Control Methods

Engineering and Administrative Controls

The primary means of reducing or eliminating personnel exposure to hazardous noise is through the application of engineering controls. Engineering controls are defined as any modification or replacement of equipment, or related physical change at the noise source or along the transmission path that reduces the noise level at the employee's ear. Engineering controls such as mufflers on heavy equipment exhausts or on air release valves

are required where possible. Administrative controls are defined as changes in the work schedule or operations which reduce noise exposure. If engineering solutions cannot reduce the noise, administrative controls such as increasing the distance between the noise source and the worker or rotation of jobs between workers in the high noise area should be used if possible. The use of engineering and administrative controls should reduce noise exposure to the point where the hazard to hearing is eliminated or at least more manageable.

Personal Protective Equipment

Hearing protective devices (ear plugs, muffs, etc.) shall be the permanent solution only when engineering or administrative controls are considered to be infeasible or cost prohibitive. Hearing protective devices are defined as any device that can be worn to reduce the level of sound entering the ear. Hearing protective devices shall be worn by all personnel when they must enter or work in an area where the operations generate noise levels of:

- Greater than 85 dBA sound levels, or
- 120 dB peak sound pressure level or greater.

Medical Surveillance

Audiometric Testing

An appropriate healthcare provider will administer the Audiometric Testing Program portion of the Summit County Engineer's Hearing Conservation Program. The object of the audiometric testing program is to identify workers who are beginning to lose their hearing and to intervene before the hearing loss becomes worse. Audiometric testing will be provided to all employees with exposure to noise levels of 85 dBA or greater. Annual retesting will be performed for all personnel enrolled in the Hearing Conservation Medical Surveillance Program.

Training

The training and education program will provide information about the adverse effects of noise and how to prevent noise-induced hearing loss. Employees shall be encouraged to use hearing protective devices when they are exposed to hazardous noise during activities at home; e.g., from lawn mowers, chain saws, etc. All personnel identified for inclusion in the hearing conservation program should receive a minimum of one hour of initial instruction in the requirements of the program.

Record Keeping

All non-medical records (ex., work area and equipment surveys) will be maintained for a period of five years. Results of hearing tests and medical evaluations performed for hearing conservation purposes as well as noise exposure documentation shall be recorded and shall be a permanent part of an employee's health record.

CONFINED SPACE ENTRY CONTROL GUIDELINES

Policy

Only authorized employees, trained in confined space entry, are permitted to enter and work in confined spaces. Unauthorized entry into a confined space is strictly prohibited.

Management Responsibilities

Federal law requires that employers identify permit-required spaces in their facilities, to label them in order to prevent unauthorized entry and to develop a written permit program. Spaces which do not require the use of tools or keys to gain access will be labeled first. The labeling will be in the form of signs, stenciling or other permanent communication that says "DANGER - PERMIT REQUIRED CONFINED SPACE - DO NOT ENTER".

The following are required before entry into a permit-required space: a hazard evaluation of each permit-required space; identification of safe entry conditions for each permit space; and training of entrants, attendants and entry supervisors as indicated by this regulation.

General Requirements

The Safety Coordinator will evaluate and identify the confined spaces in the work place and label permit-required spaces (PRS) and alternate procedure permit-spaces (APPS) as to location and hazard, and identify non-permit-required spaces.

If employees are prohibited from entering a permit-required space, evaluation, identification, and reevaluation of spaces if hazards change is all that is required.

If employees are allowed to enter a permit-required space, a written Permit-Entry Program is required.

Evaluation

An evaluation of the Summit County Engineer facilities and property has identified the confined spaces listed in the table in 8.4 below. This listing may not be all inclusive and additional confined spaces will be included as identified.

Table of SCE Confined Spaces

| DESCRIPTION | LOCATION | CONFINED SPACE CLASS |
|----------------------------|--------------------|--|
| All culverts | Various | See Culvert Entry Class Flow Chart |
| Automotive Service Pit | Maintenance Garage | Non-permit Required |
| Excavations Deeper than 4' | Various | Permit Required |
| High-level Bridge Vaults | High-level Bridge | Alternate Procedure |
| All Storm Sewers | Various | Permit Required |

Provisions for Employees

The Permit-Entry program must include provision of the following items with regard to employees:

- Appropriate testing, monitoring, ventilating, and lighting equipment.
- Personal protective equipment.
- Work area protection barriers.
- Equipment needed for safe entry / egress from the space.
- Rescue equipment consistent with the rescue service plan.
- Provision for at least one attendant outside the PRS. An attendant may monitor more than one PRS at a time but procedures should document how communications and emergencies will be handled.
- Identify duties of entrants, entry supervisors, and monitoring personnel.
- Provisions for rescue and emergency services.
- Provisions for preparation, issuance, and cancellation of permits.
- Provisions for contractors.
- Provisions for closing PRS after work is done.
- Provisions for Permit-Entry Program review if there is reason to believe that a problem is developing.
- Provisions for annual review of canceled permits and adjustments to the Permit-Entry program that may be indicated by this review and debriefing sessions.

Permit Content

Entry permits must include the following information:

- Identification of the permit-required space.
- Purpose of entry.
- Date of authorization and duration of permit. The Summit County Engineer's Office need not state a specific time period for the permit (as a number of hours or days). The permit duration will be stated in

terms of the scope of the work to be performed. Summit County Engineer permits will remain valid only until the work is completed; the conditions change; or eight (8) hours has expired.

- A means of tracking who is in the space at any time. The Office is interested in the ability of the attendant to know who is in the space at any time. If for some reason the space must be evacuated, the safe removal of all entrants must be quickly verified. A sign-in sheet will be held by the attendant. Any employee entering the confined space must sign in with the attendant and provide evidence of authorization to do so.
- Names of current attendants and the current entry supervisor. The entry supervisor and attendant would sign each permit that they are connected with. The entry supervisors signature on the permit ensures responsibility that all tests and isolation required by the permit have been completed with acceptable results. When a new attendant or entry supervisor is assigned to the space they shall sign the permit.
- The hazards identified with the space. This is based on the evaluation of the space and the work to be performed inside it under the permit. Remember in addition to space isolation, welding, heating, grinding, the use of solvents, painting or applying other protective coatings may change the hazard analysis of a specific space. These tasks should be included in the hazard evaluation of the space along with the required monitoring and acceptable concentration levels for safe entry.
- Measures taken to mitigate the hazards. These may include ventilation to reduce atmospheric hazards, washing down the space to eliminate surface contamination, isolation of fluid systems, lockout/tagout of electrical sources, and the restraint of mechanical linkages that may intrude into the system.
- Acceptable entry conditions including documentation of what contaminant levels are acceptable in the permit-required space for entry. The conditions that must be met to mitigate the hazards of the space to allow a safe entry.
- Results of initial and periodic testing and the initials of the persons performing each. The initials of personnel performing atmospheric tests next to the test results.
- How rescue and emergency services shall be summoned.
- Communication procedures between entrants and attendants. Communications between attendant and entrant shall be maintained throughout the entry. Methods of communication that may be specified on the permit include voice, radio link, tapping or rapping codes on tank walls, signaling tugs on a rope and the attendants observations that work activities such as chipping, grinding, and welding that require deliberate operator control are continuing normally. These activities make communication by voice difficult.
- Equipment needed for safe entry under the permit.
- Any other information or permits that are required for the specified purpose of entry.

Permit-Required Space Entry Protocol

Permit-required space protocol must include:

- Entry supervisor shall sign the permit to authorize entry. When the entry supervisor signs the permit to authorize entry, he is verifying that all isolation and monitoring requirements associated with a particular space have been satisfied and that the space is safe to enter and perform the tasks listed on the permit. When the supervision of the permit-required space is replaced by a new entry supervisor, a new supervisor must sign the permit as the current entry supervisor.
- A completed permit shall be available for review by all entrants (posted at the space entry). Any questions concerning the degree of isolation or safe entry conditions should be directed to the entry supervisor.
- Work performed under the permit must be limited to the description and time frame stated on permit. If work is to be performed that is not listed on the permit or the permit time extended, the impact of this additional work on the safety of the space must be evaluated and a new permit issued or the original permit amended and signed by the entry Supervisor.
- When operations covered by the permit are completed or otherwise terminated, the entry supervisor shall cancel the permit. The entry supervisor who opened the space does not have to be the one to close it. The entry supervisor responsible for the space at the completion of work must close the permit.

Alternate Procedure Spaces (APS)

APS permit spaces are not part of, and do not require, a Permit-Required Confined Space Program. They do require documentation of the evaluation of hazards in the space and how the hazards were eliminated. This information must be made available to all entrants. This documentation must be verified each time the space is opened up.

Non-Permit Confined Spaces

Permit-required spaces may be reclassified as non-permit-spaces if there are no actual or potential atmospheric hazards and all hazards within the space can be eliminated without entry into the space. If entry into the permit-required space is required to eliminate hazards, this shall be done under a permit. In each case, an entry conducted in accordance with the full permit-required space program requirements must be performed in order to ensure that the hazards have been eliminated.

Rescue Service Requirements

The Summit County Engineer's Office will utilize outside rescue teams by the use of the local 911 system. The permit will specify that an outside team is to be used and the appropriate arrangements have been made well in advance of the expected need for the service.

Use of Retrieval Systems in Permit-Required Spaces (PRS)

Retrieval systems or methods shall be used whenever an authorized entrant enters a permit-required space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. If retrieval systems are not appropriate then other means of rescue must be planned and associated training developed.

Retrieval Systems Requirements

- Each authorized entrant shall use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, or above the entrant's head. Wristlets may be used in lieu of the chest or full body harness if the management can demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.
- All entrants must wear chest or body harnesses wherever possible even if they are not attached to a retrieval system. This equipment will provide hand holds for rescue personnel and facilitate the retrieval of injured entrants from the PRS.
- The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit-required space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type permit required spaces more than 5 feet deep.
- Any PRS whose opening is above the entrant is considered a "vertical type permit-required space." The mechanical retrieval device should be appropriate for rescue service. Devices such as forklifts that could injure the entrant during rescue should not be used.
- If an injured entrant is exposed to a substance for which a material Safety data Sheet (MSDS) or other similar written information is required to be kept at the worksite, that MSDS or written information shall be made available to the medical facility treating the exposed entrant.

Contractors

All contractors working in SCE permit-required spaces must follow all SCE policies with regard to permit-required spaces.

Training for Entrants, Attendants, and Entry Supervisors

Training shall be provided:

- Prior to first assignment to duties under the Permit-Space Entry Program.
- Before there is a change in assigned duties.

- if there is a change in permit-required space operations that presents a hazard about which an employee has not previously been trained.
- Whenever management has reason to believe either that there are deviations from the permit-space entry procedures or that there are inadequacies in the employee's knowledge or use of these procedures.
- The training shall establish employee proficiency in the duties required of each individual under the permit-required space program, and shall introduce new or revised procedures, as necessary.
- Management shall certify that the required training has been accomplished. The certification shall contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification shall be available for inspection by employees and their authorized representative.

BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

Purpose

The purpose of this exposure control plan is to eliminate or minimize employee occupational exposure to blood or other potentially infectious materials as detailed in the Blood borne Pathogens standard.

Exposure Determination

OSHA requires employers to perform an exposure determination concerning which employees may incur occupational exposure to blood or other potentially infectious materials. The exposure determination is made without regard to the use of personal protective equipment (i.e. employees are considered to be exposed even if they wear personal protective equipment.) This exposure determination is required to list all job classifications in which all employees may be expected to incur such occupational exposure, regardless of frequency. At this facility there are no jobs that would incur occupational exposure.

Compliance Methods

Universal precautions will be observed at this facility in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual.

Hand washing facilities are also available to the employees who incur exposure to blood or other potentially infectious material. OSHA requires that these facilities be readily accessible after incurring exposure. Hand washing facilities are located in each office garage, and substation facility.

After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water.

If employees incur exposure to their skin or mucous membranes then those areas shall be washed or flushed with water as appropriate as soon as feasible following contact.

Work Practices

All procedures will be conducted in a manner which will minimize splashing, spraying, splattering, and generation of droplets of blood or other potentially infectious materials.

Personal Protective Equipment

All personal protective equipment used by SCE employees will be provided without cost to employees.

Personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

All garments which are penetrated by blood shall be removed immediately or as soon as feasible. All personal protective equipment will be removed prior to leaving the work area. Employees must place all contaminated personal protective equipment into a leak proof receptacle and contact the Safety Coordinator.

Gloves must be worn where it is reasonably anticipated that employees will have hand contact with blood, other potentially infectious materials, non-intact skin, and mucous membranes. Gloves will be available from first aid stations and will be used for the following procedures:

- Providing first aid.
- Potentially infectious material clean-up.
- Whenever there is a possibility of potentially infectious material contact.
- Disposable gloves may not be washed or decontaminated for re-use and must be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

Housekeeping

Decontamination of areas which have been contaminated with blood or other potentially infectious materials will be accomplished by utilizing the following material:

- Bleach mixtures
- Germicides

Hepatitis B Vaccine

All employees who have been identified as having exposure to blood or other potentially infectious materials will be offered the Hepatitis B vaccine, at no cost to the employee.

The vaccine will be offered to employees as soon as possible but no later than 24 hours after an exposure incident as defined by the standard.

All incidents of first aid will be reported by the end of the work shift to a supervisor in order to ensure that proper precautions concerning the incident are followed and that the vaccine is offered to unvaccinated employees within 24 hours.

Employees who decline the Hepatitis B vaccine will sign a [Hepatitis B Vaccine Declination](#) waiver which uses OSHA standard wording.

Employees who initially decline the vaccine but later wish to have it may then have the vaccine provided at no cost.

Evaluation of Circumstances Surrounding Exposure Incidents

When an employee incurs an exposure incident, it should be reported to the immediate supervisor, who will immediately contact the Safety Coordinator. The Safety Coordinator must maintain the records for all exposure incidents.

All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up in accordance with the OSHA standard.

Training

Training for all employees will be conducted prior to initial assignment to tasks where occupational exposure may occur.

Training for employees will include the explanation of the following:

- The OSHA standard for Blood borne Pathogens.
- Epidemiology and symptomatology of blood borne diseases.
- Modes of transmission of blood borne pathogens.
- This Exposure Control Plan (i.e. points of the plan, lines of responsibility, how the plan will be implemented, etc.).

- Activities of SCE's employees which might cause exposure to blood or other potentially infectious materials.
- Control methods which will be used by SCE employees to control exposure to blood or other potentially infectious materials.
- Personal protective equipment available to employees and who should be contacted concerning its use.
- Post exposure evaluation and follow-up.
- Signs and labels used at the facility.
- Hepatitis B vaccine program at the facility.

Record Keeping

The Safety Coordinator will maintain all records required by the OSHA standard.

SAFETY AUDITS & INSPECTIONS

Purpose

Inspections of work areas and audits of safety programs are tools that can be used to identify problems and hazards before such conditions result in accidents or injuries. Audits also help to identify the effectiveness of safety program management and can be used as a guide to assure regulatory compliance and a safe workplace.

Responsibilities

Management

- Design complete audit and inspection procedures for all work areas, processes and procedures.
- Conduct routine audits and inspections.
- Ensure audits are conducted by employees who understand the various safety programs and policies.

Supervisors

- Conduct informal daily safety inspections and ensure all unsafe conditions are corrected.
- Conduct documented weekly inspections and ensure all unsafe conditions are corrected.

Corrections

All safety deficiencies found during audits and inspections should be corrected as soon as possible.

Documentation of corrections should be made on the audit or inspection sheet. And conditions that present

hazards must be corrected or controlled immediately.

Types of Inspections

Supervisor & Management Daily Walk-through: this is an undocumented inspection that is made daily to ensure the facility and equipment are in safe conditions for employees. All noted unsafe areas are placed in a safe condition prior to employees working in the area.

Weekly Supervisor Inspections are conducted and recorded with an employee. This documented inspection provides a focus to ensure current hazard controls are still effective, equipment is in safe condition and safe work practices are in use. Discrepancies must be listed on the inspection sheet, recorded on work orders for correction. The inspection sheet ([Weekly Safety Report Form](#)) must be forwarded to the Safety Coordinator for review and logging to track discrepancy correction.

Noise Surveys

Noise surveys will be conducted at least annually, or whenever facility modifications are made that impact the ambient noise levels in any area of the facility.

Hygiene Surveys

Hygiene surveys such as air monitoring and inspection will be conducted on a periodic basis subject to regulatory requirements and the need to ensure environmental conditions remain safe and healthful.

Equipment Inspections

Equipment inspections will be conducted to ensure specific safety equipment is in good working order and will function when needed. Examples and frequencies are:

- Emergency Lighting Test – Weekly.
- Fire Extinguisher Inspections – Weekly.
- Safety Equipment Inventories – Weekly.
- Emergency Lighting 90 Min. Test – Semiannually.
- Respirator Inspections- Before / After Use (Monthly at a minimum).

Program Audits

Program audits are conducted to check the administration of specific safety and health programs. Examples are:

- Lockout-Tagout
- MSDS
- PPE Assessments
- Confined Space Assessments

Record Retention

Records of audits and inspection will be maintained in accordance with the requirements of the specific programs. As a minimum, the last two program audits will be kept on record and inspection records will be maintained on a most current basis. Records of deficiency corrections will be maintained for one calendar year from date of correction.

EXCAVATION & TRENCHING SAFETY

Purpose

This program outlines procedures and guidelines for the protection of employees working in and around excavations and trenches. This program requires compliance with OSHA Standards described in Subpart P Excavations (CFR 1926.650) for the construction industry.

Compliance is mandatory to ensure employee protection when working in or around excavations. The programs in this manual on confined space, hazard communication, lock-out/tag-out, respiratory protection, and any other safety programs or procedures deemed essential for employee protection, are to be used in conjunction with this policy references 29 CFR 1926.650, Subpart P – Excavations Excavation Equipment Manufacturer Safety Procedures. This program pertains to all Summit County Engineer projects that require any excavations or trenches.

Responsibilities

It is the responsibility of each supervisor to implement and maintain the procedures and steps set forth in this program. Each employee involved with excavation and trenching work is responsible to comply with all applicable safety procedures and requirements of this program.

General Requirements

Before any work is performed and before any employees enter the excavation, a number of items must be checked and ensured:

- Before any excavation, underground installations must be determined. This can be accomplished by either contacting the local utility companies or the local "one-call" center for the area. All underground utility locations must be documented on the proper forms. All overhead hazards (surface encumbrances) that create a hazard to employees must be removed or supported to eliminate the hazard.
- Any excavation lower than 20 feet deep, must be designed by a registered professional engineer who is registered in the state where work will be performed.
- Adequate protective systems will be utilized to protect employees. This can be accomplished through sloping, shoring, or shielding.
- The worksite must be analyzed in order to design adequate protection systems and prevent cave-ins. There must also be an excavation safety plan developed to protect employees.
- Workers must be supplied with and wear any personal protective equipment deemed necessary to assure their protection.
- All spoil piles will be stored a minimum of four (4) feet from the sides of the excavation. The spoil pile must not block the safe means of egress.
- If a trench or excavation is 4 feet or deeper, stairways, ramps, or ladders will be used as a safe means of access and egress. For trenches, the employee must not have to travel any more than 25 feet of lateral travel to reach the stairway, ramp, or ladder.
- No employee will work in an excavation where water is accumulating unless adequate measures are used to protect the employees.
- A competent person will inspect all excavations and trenches daily, before employee exposure or entry, and after any rainfall, soil change, or any other time needed during the shift. The competent person must take prompt measures to eliminate any and all hazards.
- Excavations and trenches 4 feet or deeper that have the potential for toxic substances or hazardous atmospheres will be tested at least daily. If the atmosphere is inadequate, protective systems will be utilized.
- If work is in or around traffic, employees must be supplied with and wear orange reflective vests. Signs and barricades must be utilized to ensure the safety of employees, vehicular traffic, and pedestrians.

Competent Person Responsibilities

The OSHA Standards require that the competent person must be capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and have authorization to take prompt corrective measures to eliminate them and, if necessary, to stop the work.

Excavation Safety Plan

An excavation safety plan is required in written form. This plan is to be developed to the level necessary to ensure complete compliance with the OSHA Excavation Safety Standard and state and local safety standards.

Excavation safety plan factors must include:

- Utilization of the local one-call system.
- Determination of locations of all underground utilities.
- Consideration of confined space atmosphere potential.
- Proper soil protection systems and personal protective equipment and clothing.
- Determination of soil composition and classification.
- Determination of surface and subsurface water.
- Depth of excavation and length of time it will remain open.
- Proper adherence to all OSHA Standards, this excavation and trenching safety program, and any other coinciding safety programs.

Soil Classification and Identification

The OSHA Standards define soil classifications within the Simplified Soil Classification Systems, which consist of four categories: Stable rock, Type A, Type B, and Type C. Stability is greatest in stable rock and decreases through Type A and B to Type C, which is the least stable. Appendix A of the Standard provides soil mechanics terms and types of field tests used to determine soil classifications. Stable rock is defined as natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

Soil Test & Identification

A competent person will classify the soil type in accordance with the definitions in Appendix A, CFR 1926 Subpart P on the basis of at least one visual and one manual analysis. These tests should be run on freshly excavated samples from the excavation and are designed to determine stability based on a number of criteria: the cohesiveness, the presence of fissures, the presence and amount of water, the unconfined compressive

strength, the duration of exposure, undermining, and the presence of layering, prior excavation and vibration. When examining the soil, three questions must be asked: Is the sample granular or cohesive? Fissured or non-fissured? What is the unconfined compressive strength measured in TSF?

Personal Protective Equipment

It is SCE policy to wear a hard hat, safety glasses, and work boots on the jobsite. Because of the hazards involved with excavations, other personal protective equipment may be necessary, depending on the potential hazards present (examples -goggles, gloves, and respiratory equipment).

Inspections

Daily inspection of excavations, the adjacent areas and protective systems shall be made by a competent person for evidence of a situation that could result in a cave-in, indications of failure of protective systems, hazardous atmospheres or other hazardous conditions.

- All inspections shall be conducted by a competent person prior to the start of work and as needed throughout the shift.
- Inspections will be made after every rainstorm or any other increasing hazard.
- All documented inspections will be kept on file in the jobsite safety files and forwarded to the Safety Coordinator weekly.

Training

A competent person(s) must be trained in accordance with the OSHA Excavation Standard, and all other programs that may apply (examples Hazard Communication, Confined Space, and Respiratory Protection), and must demonstrate a thorough understanding and knowledge of the programs and the hazards associated. All other employees working in and around the excavation must be trained in the recognition of hazards associated with trenching and excavating.

FALL PREVENTION PROGRAM

Purpose

The purpose of this program is to support and encourage management, supervisors and employees to prevent hazardous conditions that could result in slips, trips or falls.

Responsibilities

Management will:

- Conduct routine inspections to ensure all walking and working surfaces are free from slip, trip and fall hazards.
- Conduct training for employees who use ladders, scaffolds or other elevated platforms.
- Conduct training in use and inspection of fall prevention & arrest equipment.
- Ensure proper ladders are used for specific tasks.
- Provide adequate fall prevention & arrest equipment.

Employees will:

- Maintain work areas free from slip, trip & fall hazards.
- Correct or immediately report slip, trip and fall hazards.
- Use proper ladders for assigned tasks.

FORK LIFT SAFETY

Purpose

This chapter applies to all powered industrial trucks, hoists & lifting gear. The information in this chapter shall be used to train prospective industrial truck operators and provide the basis for refresher and annual retraining. OSHA reference for Powered Industrial Trucks is 1910.178.

Pre-Qualifications for Powered Industrial Truck (PIT) Operators

All candidates for PIT operators must meet the following basic requirements before starting initial or annual training:

- Must have no adverse vision problems that cannot be corrected by glasses or contacts.
- No adverse hearing loss that cannot be corrected with hearing aids.
- No physical impairments that would impair safe operation of the PIT.
- No neurological disorders that affect balance or consciousness.
- Not taking any medication that affects perception, vision, or physical abilities

Training

Powered Industrial Truck (PIT) Operators training shall be conducted by an experienced operator, selected by Management. All operational training shall be conducted under close supervision. All training and evaluation

must be completed before an operator is permitted to use a Powered Industrial Truck (forklift, etc.) without continual & close supervision.

Powered Industrial Truck Pre-Use Checklist

A check of the following items (as applicable) is to be conducted by the operator prior to use each shift.

- Lights
- Horn
- Brakes
- Leaks
- Warning Beacon
- Backup Warning Alarm
- Fire Extinguisher

If any deficiencies are noted, the unit is to be placed OUT OF SERVICE until the problem has been corrected. Additionally, it is the operator's responsibility to notify the immediate supervisor.

OFFICE SAFETY

Scope

The purpose of this program is to provide guidance to office managers and office staff on the elements of safe office work.

Responsibilities

Management will:

- Provide training for all office staff in: Emergency Procedures, Electrical Safety, and Office Ergonomics.
- Ensure office equipment is in safe working order.
- Provide proper storage for office supplies.

Employees will:

- Report all safety problems immediately.
- NOT attempt to repair any office equipment or systems.
- Maintain a neat and sanitary office environment.

HAZARD COMMUNICATION PROGRAM

Scope and Application

This written Hazard Communication Program describes the policies, practices, and procedures for the Summit County Engineer's Office's compliance with the Occupational Safety and Health Administration's Hazard Communication Standard (29 CFR 1910.1200) including the following items:

- Material Safety Data Sheets,
- Labeling and other forms of warning.
- Employee information and training.
- The availability of our inventory of hazardous chemicals.
- Methods for informing employees of the hazards of non-routine tasks.
- Methods of informing contractors of hazardous materials in areas where they may be working.

Exclusions

This program does not address the following items since they are exempt under the standard:

- Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.), when subject to regulations issued under that Act by the Environmental Protection Agency.
- Tobacco or tobacco products.
- Wood or wood products.
- Manufactured items which are formed to a specific shape or design, which have end use function(s) dependent in whole or in part upon that shape or design during end use, and which do not release, or otherwise result in exposure to, a hazardous chemical or material under normal conditions of use or in foreseeable emergencies.
- Foods, drugs, or cosmetics intended for personal consumption by employees while in the workplace.

Location

This program applies to any department or area where chemicals are known to be present in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency (Note: Consumer products, such as paper correction fluid, are exempt under the standard if they are used in the same manner as consumer use, and if the duration and frequency of exposure is no more than that experienced by consumers).

A copy of the Summit County Engineer's Hazard Communication Program will be made available for employee review. Hazard information in the form of Material Safety Data Sheets (MSDS) for the chemical hazards in the work areas will also be available for consultation by employees. The written program and relevant MSDSs will be maintained in the maintenance office and garage at the main station, and in a central location in each of the sub-stations and will be immediately accessible to all employees, their representatives, and all government entities with an interest in occupational safety and health.

A master chemical inventory and a master copy of all MSDSs will be maintained by the Safety Coordinator.

Employee Questions

Employee questions concerning the Hazard Communication Program should be directed to the Safety Coordinator.

Responsibilities

The Safety Coordinator has the responsibility of management of the Hazard Communication Program under the direction of the Summit County Engineer. While these individuals represent the specific reporting chain, a matrix management approach is required for the most efficient accomplishment of some tasks, and all management personnel are expected to assist in the implementation of this program.

Incoming Container

The Safety Coordinator will require appropriate vendor labeling of all purchased chemicals or materials deemed potentially hazardous.

Outgoing Containers

While The Summit County Engineer's Office does not manufacture or distribute hazardous chemicals, a situation may arise when either full or partially empty containers need to be returned to the manufacturer. If the original label is defaced or unreadable on any of these containers, the Supervisor will attempt to get another label from the manufacturer before returning the container. If a label cannot be secured, a copy or facsimile of the original label will be used which contains all of the information on the original label.

Process Containers (Stationary and Portable)

All containers of hazardous materials within the workplace must be labeled, except as noted below, with at least the following information:

- Identity of the material; and

- Appropriate hazard warnings to ensure employee protection.
- Where the contents of stationary process containers of hazardous chemicals change frequently, or where their labels could be obscured or destroyed by heat, spillage, or other factors, signs or placards may be posted to convey the required information.
- The only types of containers that need not be labeled are those portable ones which:
 - The entire contents are for immediate use by the person making the transfer.
 - The portable container is used only by and remains under the control of the person making the transfer.
 - The portable container is used only within the work shift during which it was originally filled.

Secondary Labeling System

Secondary hazard labeling must be applied in those cases where a hazardous chemical is transferred to another container or where a manufacturer's label has become defaced or illegible.

The Summit County Engineer's Office will utilize the Hazardous Material Identification System (HMIS), designed by the National Paint and Coatings Association, for all necessary hazard labeling. This system utilizes hazard rankings from 1 to 4, with 4 representing the highest hazard, for each of three different types of hazards, including Flammability, Health and Reactivity. In addition, the name of the hazardous substance and a recommended personal protective equipment code must also be filled in on the label.

Hazardous Chemical List

The Safety Coordinator will maintain a master list of hazardous chemicals used throughout the Summit County Engineer's Office facilities. The lists will be updated as needed when new chemicals are obtained or old ones are phased out.

Employee Information and Training

Every Summit County Engineer employee will be informed on the requirements of the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and any other similar "Right-to-Know" legislation, the location and availability of the Written Hazard Communication Program, including the required list of hazardous chemicals and corresponding MSDSs.

In every Summit County Engineer's Office facility where chemicals or hazardous materials are used or stored, a notice shall be posted at a location where notices to employees are normally posted. The notice shall inform employees that they or their designated representatives have a right to information from their employer regarding the toxic or hazardous effects of the chemicals or hazardous materials and the circumstances under

which these effects may be produced. The notice should also inform employees of procedures to be followed or persons to contact to obtain the information.

For every employee working in an area where chemicals or hazardous materials are used or stored, training will be provided based on the nature of the hazards.

EMERGENCY ACTION AND FIRE PREVENTION PROGRAM

Purpose

The Summit County Engineer recognizes the value of our employees, members of the community, and the environment. It is the policy of the Summit County Engineer to ensure that all employees are adequately trained and informed to properly respond to emergencies which might occur during the course of the normal working activities.

This plan summarizes the emergency procedures and fire prevention procedures for employees of the Summit County Engineer's office working at the main facility located at 538 East South Street in Akron, Ohio, as well as any employees working at any of the highway maintenance stations. This plan has been developed to provide information, guidance, direction, and instructions on the proper methods for responding to emergency situations. This plan was developed so that our employees will be able to properly notify emergency response agencies and react in a manner that will provide for the protection of our employees.

General Procedures

Fire

In the event of a fire, the person discovering the fire shall immediately report the location of the fire to the fire department and then to the receptionist.

The receptionist will then proceed with the notification procedures outlined in section 16.9 "Specific Responsibilities."

Employees are not required, nor is it suggested that employees attempt to fight a fire. If the fire is small and containable, if the rescue of another employee is not involved, and if only small quantities of flammable or combustible materials are involved, the discovering employee may choose to fight the fire with an extinguishing unit after properly reporting the fire. At no time should an employee risk the safety of himself or other employees. If the discovering employee chooses to fight a small fire, the employee must do so in accordance with the following guidelines:

- Ensure selection of the proper type of extinguisher for the materials involved in the fire. Class A effective for ordinary combustibles (paper, wood, etc.), Class B for flammable liquids, and Class C for fires involving electrical equipment.
- Avoid fighting a fire alone. If possible, at least two people should be present to provide assistance in case of difficulty.
- Ensure that each person is safely located between the fire and the nearest exit.
- If the fire does NOT appear to be contained, or if toxic gases, fumes, or smoke are evolving from the fire, evacuate the area immediately.

Chemical Spills

In the event of a chemical spill, the person discovering the spill shall note the type, amount, and location of the material involved and report this information to their immediate supervisor.

Spills involving quantities of less than 10 gallons should be reported to the discovering employee's immediate supervisor, who will assess the spill and proceed according to the following guidelines:

- If the spill is of such a characteristic or material that it poses a health, fire, or other safety threat to employees, the supervisor will immediately evacuate the area and contact the Safety Coordinator (or other authorized individual), who will then proceed with the notification/evacuation procedures.

Those minor spills which are determined not to pose a health, fire or safety threat should be stopped from spreading and soaked up by using the minimum amount of sorbent. Because contaminated sorbents may be hazardous wastes, they must be placed into a DOT approved container for proper disposal. Only non-sparking tools will be used for sorbent contaminated with flammable materials. The Safety Coordinator must be notified following spill cleanup. The Safety Coordinator shall ensure that the waste is properly labeled and disposed.

Tornado

In the event of inclement weather, the weather monitoring personnel will monitor the National Weather Service announcements.

In the event that a tornado warning is issued by the National Weather Service, the monitoring personnel will notify the Safety Coordinator.

The Safety Coordinator will notify the receptionist who will proceed with the notification/evacuation procedures outlined in section 16.9 "Specific Responsibilities."

The Tornado Emergency Plan will be placed into effect immediately.

Designated tornado shelter areas include inner wall rooms (away from windows).

When a tornado threatens:

- Avoid windows, doors, and outside walls.
- Move to the closest tornado shelter.
- If outdoors with no shelter available, lie flat in a nearby ditch or other depression in the ground and shield head with arms.

Bomb Threat

Bomb threats can be received by telephone, in person, or by mail. In the event an employee has direct contact with the person(s) making the threat, it is important to stay calm and pay attention to specific information. If available at the time of the contact, a bomb threat report should be completed. Specific attention should be given to the exact wording of the message, and the time the bomb is predicted to explode.

Notify the receptionist as soon as possible. The receptionist will then proceed with the notification/evacuation procedures outlined in Section 16.9.1 “Specific Responsibilities.” Take no further action unless directed to do so. Do not discuss the threat with other employees or with people outside the agency unless directed to do so.

The Safety Coordinator or other authorized individual will report the threat and their assessment to the appropriate City Police Department. The decision to search and/or evacuate will be made if the police and management have reason to believe that the threat is valid.

Communication Systems

Current System Capabilities

None of the SCE facilities covered in this plan are equipped with alarm systems directly linked to emergency service providers. Therefore, the P.A. system that is currently in place will serve as the main method for employee notification. Employees stationed in buildings or facilities without a P.A. system should use two way radio communications for notification purposes where possible.

Paging System

In the event of an emergency, the following codes will be used to inform employees of the type of emergency and the appropriate actions to take:

- Fire Emergency – “Fire Emergency” indicates that a fire has been reported in the facility and that employees should evacuate their work areas according to the evacuation procedures described in Section 16.8. Note any special instructions given over the paging system due to the location of the fire.

- Chemical Release Emergency – “Chemical Release Emergency” indicates that chemical spill has been discovered in the facility and that evacuation of employees is necessary. Employees should evacuate their work areas according to the evacuation procedures described in Section 16.8. Note any special instructions given over the paging system due to the location of the spill or release.
- Tornado Emergency – “Tornado Emergency” indicates that a tornado warning has been issued by the National Weather Service. Employees should immediately take cover in an inner wall room with no windows.
- Bomb Threat Emergency - “Bomb Threat Emergency” indicates that an evacuation has been ordered as a result of a bomb threat. Employees should immediately evacuate the facility according to the evacuation procedures described in Section 16.8. Note any special instructions provided over the paging system which may be necessary due to suspected location and characteristics of the bomb.

Two-way Radios

To the extent possible, two-way radios will be utilized during emergency evacuation procedures to ensure that adequate means of communication is provided in the event of utility outage.

All two-way radios will be determined to be intrinsically safe in order to avoid possible explosion and fire hazards.

The following Summit County personnel will have access to, and be expected to use, two-way radios during all emergency evacuation and other emergency procedures:

- Safety Coordinator
- Department Managers
- Station Foreman

Evacuation Procedures

Building and/or facility wide evacuation should occur as instructed over the paging system. When notified to evacuate, all employees should immediately evacuate the facility using the nearest exit and evacuation routes. Evacuation routes are posted at key locations throughout the buildings, along with a list of emergency telephone numbers. After exiting the facility, all employees should immediately report to the assembly area. Evacuation must be immediate and complete to allow for a head count, to clear the area for emergency response agencies, and to provide for the safeguard of all employees.

Specific Responsibilities

Receptionist

The receptionist is designated as the person handling incoming telephone calls. The staffing of the receptionist varies, and may include administrative assistant staff or supervisory personnel.

- The receptionist will be responsible for assisting in the notification of appropriate SCE personnel and emergency assistance personnel as detailed in the plan.
- The receptionist will be responsible for informing employees of any evacuation as detailed in the plan.
- The receptionist will be responsible for the transfer of the visitor sign-in log to the assembly area.

Department Managers

The Department Managers are responsible for ensuring that employees are swiftly evacuated from the facility. Before exiting the facility, the department managers will check rooms and other enclosed spaces for employees who may be trapped or otherwise unable to evacuate the area.

Safety Coordinator

- The Safety Coordinator will be responsible for collecting and documenting the headcount during an evacuation.
- The Safety Coordinator (or other designated persons) will be responsible for verifying that all visitors listed in the visitor's sign-in log and present at the time of the evacuation are accounted for.
- The Safety Coordinator will be responsible for providing any necessary information to all appropriate emergency response agencies responding to the incident. In addition, any EPA or OSHA notifications required will be made by the Safety Coordinator or an individual designated by the Safety Coordinator.
- The Safety Coordinator will notify employees when "all-clear" condition exists as informed by the emergency response agency.

Emergency Assistance Facilities

Fire – In the event of a fire, the appropriate City Fire Department for the facility involved will be notified. They may be notified by dialing 911.

Chemical Spill/Release Response – In the event of a chemical spill or release, the appropriate City Fire Department for the facility involved will be notified and dispatch the HazMat Response Team. Dial 911 to notify the Fire Department.

Criminal Acts – For acts of a criminal nature (i.e., bomb threat, rioting, violence), the appropriate City Police Department for the facility involved will be contacted by dialing 911.

Medical and First Aid – Should an event occur which necessitates medical and first aid assistance for the Summit County personnel at the main facility in Akron, Akron City Hospital will be notified of the need for on-site assistance and/or notified of employees in transit. Summa Akron City Hospital is located at 525 East Market Street in Akron, Ohio, and can be reached in an emergency by dialing 330-375-3361 or dialing 911. Medical and first aid assistance needed for personnel outside of Akron will generally be provided by the nearest medical facility, and can be accessed by dialing 911.

Employee Training

The emergency evacuation route diagrams will be posted in the corresponding area covered. The diagrams will be posted in a conspicuous area for employee review. A summary of the general procedures and emergency telephone numbers will be posted adjacent to each posted emergency evacuation route diagram.

All employees will be trained in the contents of this emergency evacuation and fire prevention plan. Employees will receive this training upon initial assignment, when the employee's responsibilities or designated actions under the plan change, and when the plan has been modified.

Personnel with specialized duties under the plan will also receive training as to those responsibilities.

This training will meet the requirements of the Occupational Safety and Health Administration (OSHA) Employee Emergency Plans and Fire Prevention Plans (29 CFR 1910.38) standard.

Hepatitis B Vaccine Declination

I understand that, due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring the Hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to me. However, I decline the Hepatitis B vaccination at this time.

I understand that by declining this vaccine, I continue to be at risk of acquiring the serious disease Hepatitis B.

If, in the future, I continue to experience occupational exposure to blood or other potentially infectious materials and I wish to be vaccinated with the Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

| Signature of Employee Declining Vaccination | Date of Signature |
|---|-------------------|
| : | : |

| Signature of <i>Responsible Person</i> | Date of Signature |
|--|-------------------|
| : | : |

Edit

Weekly Safety Report Form

| Supervisor Weekly Safety Inspection Report | Summit County Engineer Department | |
|--|-----------------------------------|---------------|
| Location | Performed By | Date and Time |
| : | : | : |

Expectation: Supervisors are to inspect assigned areas each week, together with one or more employees. Inspections are to be done with no other purpose except to observe actions and behaviors of employees, and to make observations of equipment and conditions in the area. Correct conditions or problems which can be done immediately; document all others and verify completion prior to end of each week. Forward completed forms to the Safety Coordinator.

Employee Actions

- ⊖ Correct PPE (eye, hand, respiratory) being worn.
- ⊖ Appropriate tools being used in a safe manner.
- ⊖ Ladders, rigging, and other equipment are in proper use.

Housekeeping

- ⊖ Walkways and marked "Safety Zones" are clear.
- ⊖ Air hoses and electric cords are coiled up and stored properly.
- ⊖ Unused tools are stored (jobs on hold) or are returned to the Tool Room.
- ⊖ Unused parts/materials are identified and stored (jobs on hold) or are returned to Inventory.
- ⊖ Damaged parts are identified for inspection or reference, or discarded.
- ⊖ Active work areas are uncluttered, with tools and materials off the floor.
- ⊖ Water and oil spills are cleaned up.
- ⊖ Floor area swept or hosed clear of debris.
- ⊖ Equipment cleaned, guards installed.
- ⊖ Grating replaced, floor openings covered.

- θ Combustible rubbish and oily rags disposed of in a fire-resistant receptacle.
- θ Oily deposits cleaned from walls, ceilings, exhaust ducts and mechanical equipment.
- θ Aisles and walkways clear of materials and other obstructions.
- θ Fire extinguishers, fire exits, eye wash facilities, and safety showers clear of obstructions.
- θ Fuels, solvents, thinners, etc., in approved containers.
- θ Trash is picked up.

Electrical

- θ Disconnects have proper covers and covers closed and fastened.
- θ No flexible cords taped or showing signs of wear
- θ Emergency stop devices work
- θ Indicator lamps operating.
- θ Unused openings are plugged.
- θ Switches and circuit breakers labeled.
- θ No exposed wires on equipment.
- θ All controls function properly.
- θ Electrical cords do not hang on pipes, nails, hooks.
- θ No cords pass through walls, ceiling, doors or windows.
- θ Electrical panels accessible (2 feet on each side and 4 feet in front).
- θ Power cords grounded.
- θ Extension cords not used for power bench tools.
- θ Plugs properly attached to cords.
- θ Tool switches operate properly.
- θ Power cords arranged in a neat and non-hazardous manner.
- θ No cords strung along walkways.
- θ Coffee pots/warmers turned off at end of the day.
- θ Electric heaters unplugged at the end of the day.
- θ Power outlets and electrical devices covered.
- θ Outlets within six feet of sinks ground fault protected.

Weekly Safety Report Form (Page 2)

Equipment

- θ Guards on air tools, pedestal grinders, etc., are in good condition and installed.
- θ Machines are properly secured if not in use, guards and barriers installed and in good condition.
- θ Equipment is stored properly.

- θ Vehicles stored properly.
- θ Emergency lighting test conducted.
- θ Fire Extinguishers in place and operational.
- θ Adequate supply of safety equipment available to employees.

| Observations made by employee conducting inspection | Corrective Actions Recommended |
|---|--------------------------------|
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |
| 6. | |
| 7. | |
| 8. | |
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| 10. | |
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| 16. | |
| 17. | |
| 18. | |
| 19. | |
| 20. | |

Culvert Entry Class Flow Chart

APPENDIX A: CULVERT ENTRY CLASS FLOW CHART

