

SAFETY MANUAL

A - SAFETY POLICY STATEMENT

To Our Employees:

Safety and Health in our business must be part of every operation. Without question, it is every employee's responsibility at all levels.

It is the intent of this company to comply with all laws and provide a safe and healthful work environment for employees. To do this, we must constantly be aware of conditions in all work areas that can produce injuries. Our goal is to eliminate unsafe acts, unsafe conditions, and near-miss incidents. No employee is required to work at a job he/she knows is not safe or unhealthy. Your cooperation in detecting hazards and, in turn controlling them, is a condition of your employment. Inform your Foreman or Manager immediately of any situation beyond your ability or authority to correct. No reprisal or punitive action will ever be taken against an employee for providing such hazard notice to company management.

The personal safety and health of each employee of this company is of primary importance. Our objective is to reduce the number of injuries and illnesses to an absolute minimum and to foster and promote the concept of an **Injury Free Environment**.

Employees who violate safety and health rules, orders or standards, or expose themselves or fellow employees to safety or health hazards, will be subject to disciplinary measures.

Senior management personnel are responsible for the managers that they oversee as it relates to the implementation of this program. All supervisory personnel are responsible for the actions of those whom they supervise, and are responsible for maintaining safe and healthy working conditions in their areas of responsibility. Therefore, they will be held accountable for strictly enforcing all safety rules and regulations. All workers are expected to comply with these rules and regulations. To effectively motivate workers, and to monitor safe work practices, all Foremen, Managers, and Lead Personnel will become familiar with this Safety Program.

If you have any questions regarding the program or the company's Code of Safe Practices, which every employee is required to read, acknowledge and sign, contact your Foreman or Manager, or the Mountain Cascade Safety Director.

We look forward to joining with you in this opportunity to promote physical and financial well-being for the company and all our employees.

Sincerely,

Duke Fuller
President

B - AFFIRMATIVE ACTION PROGRAM

To Our Employees:

Mountain Cascade, Inc. has a hiring policy of obtaining all field personnel through the appropriate union, based on job classification. There is no requirement in regard to qualification based on race, creed, religion, sex or national origin. We are an equal opportunity employer.

All personnel are hereby advised that we are an equal opportunity employer and are encouraged to recommend minority employees to us.

We provide on the job training to all personnel who wish to upgrade to new classifications. We will constantly review policies and practices in regard to upgrading, promoting, transferring, demoting, or laying off of employees to guarantee that there has been no discrimination. We assure that wages, working conditions, and employee benefits are administered on a non-discriminatory basis.

If for any reason during your employment you feel that Mountain Cascade, Inc. is involved in condoning any practice of discrimination, you are advised to report the basis of your concern to the Safety Director for investigation, response, and reaction.

Sincerely,

Roger Williamson
Vice President of Operations

SAFETY MANUAL

& IIPP/Code of Safe Practices

Mountain Cascade, Inc. General Engineering Contractor



MOUNTAIN CASCADE, INC.

General Engineering Contractor

License 422496 Class A

555 Exchange Court

P.O. Box 5050

Livermore, CA 94551

(925) 373-8370 Phone

(925) 373-0179 fax

It is the intent of Mountain Cascade, Inc., to comply with the requirements and spirit of California Code of Regulations, Title 8. Accordingly, effective July 1, 1991, Mountain Cascade, Inc., implemented an Injury and Illness Prevention Program in compliance with Senate Bill 198, encoded as Labor Code 6401.7 and the California Code of Regulations (CCR), Title 8, Section 3203.

PREFACE

The purpose of this manual is to outline the Mountain Cascade Safety Program and Safe Work Procedures. It has been designed to be usable guideline for Project Safety. It should be used for project planning, toolbox safety meetings, and basic training of personnel. It should be used as a reference for specific work procedures such as Lockout/Tagout, Confined Space, Chemical Use, Scaffolding, Excavations, Fall Protection and Cranes and Rigging.

The manual is not meant to be a substitute for, but should be used in conjunction with OSHA standards. All projects will have a current copy or internet access to the applicable OSHA standards as an appendix to the safety manual. These will be available for review by any personnel working on a project.

All contractors will be required to come to work on a Mountain Cascade Project with a complete understanding of OSHA Standards applicable to their scope of work.

It should be noted that in some instance the Mountain Cascade Safety Program will have requirements that exceed local OSHA standards. Additionally, some owners/developers may have safety, health and/or environmental regulations that exceed Mountain Cascade's and/or owners. Examples would be requirements for Crane Operator Certification and Use of Full Body Harness for Fall Arrest Conditions above 6 feet. Where conflicting requirements exist, the most stringent will apply.

All contractors and personnel working on a Mountain Cascade Project will be required to abide by the rules of the Mountain Cascade Safety Manual. The manual is designed to accommodate new ideas, procedures and law changes. It should be maintained in a three-ring binder to easily accept section updates. Access to the safety manual, as well as other safety, health and environmental issues will also be maintained on the MCI website.

It is important to remember that safety rules cannot be created to cover all conditions on a construction project. The most important element in prevention of accidents and injuries is the use of common sense and a good safety attitude.

Mountain Cascade will require that all subcontractors submit a written safety plan to the project superintendent for review and approval prior to any work being performed. The Safety Plan must be specific to the scope of work to be performed and specific to that project. Additional Safety Plans and approvals will be required for specific work procedures such as: Fall Protection, Confined Space, Lockout & Tagout, Chemical Use and Trenching.

Documentation of special training or qualifications may be required for certain work procedures. Examples: Trenching & Excavation, Crane Operators, Forklift Operators and Aerial Lift Unites. Wallet size cards documenting such qualifications are normally acceptable.

All Subcontractors shall have a Modified Work Program for injured workers.

All subcontractors may be evaluated on their safety performance on a Mountain Cascade project. Poor safety performance will be discussed any may preclude future work for Mountain Cascade.

All subcontractors working on a Mountain Cascade Project are encouraged to ask questions about safety. We want to help you work safely. Our Safety Department is a resource to our company and also to our subcontractors when working on our projects.

WORKING SAFELY IS A CONDITION OF EMPLOYMENT ON A MOUNTAIN CASCADE PROJECT.

C - REST/MEAL PERIOD POLICY

Each non-supervisory employee is entitled to up to ten minutes of authorized break time during each four (4) hours worked or major fraction thereof. Restroom and/or snack breaks should not exceed a total of ten minutes time during each work period. Breaks should be taken in so far as practicable in the middle of the work shift. A Foreman or Manager may restrict the location of any break. Breaks may not be combined with your lunch period nor may an employee leave work early in lieu of taking a break. It is every employee's responsibility to take his/her authorized breaks within the allotted time. IF an employee is directed by his/her Foreman or Manager not to take a break(s) on a given day due to the nature of the work in progress, the employee will be compensated for any missed break at his/her straight-time hourly rate. Each employee working five (5) or more hours per workday shall receive an uninterrupted meal period of at least thirty (30) minutes or as otherwise provided by the employer's union agreement. The employee shall be relieved of all duty during his/her meal period.

D - HARASSMENT POLICY

It is the policy of Mountain Cascade, Inc., that harassment not be tolerated in any form. Should any employee be found to be conducting him or herself in a harassing manner, they may be immediately terminated (For complete policy, see Appendix J)

Investigation and Review Procedure

Any employee who has a complaint to make against another employee on the grounds of harassment should contact the President or the Safety Director. If reported to the Safety Director, then the Safety Director shall report the matter to the President.

The President shall see to it that each complaint is investigated promptly and properly and hopefully resolved to the satisfaction of all parties.

E - THE AMERICANS WITH DISABILITIES ACT

The Americans with Disabilities Act of 1990 (ADA) enacted by congress makes it unlawful to discriminate in employment against a qualified individual with a disability. The ADA also outlaws discrimination against individuals with disabilities in State and local government services, public accommodations, transportation and telecommunications. This law is enforced by the U.S. Equal Employment Opportunity Commission (EEOC) and State and local civil rights enforcement agencies that work with the commission.

EMPLOYEE ACCESS TO THE IIPP

The written IIPP will be readily available from the following:

www.Mountaincascade.com site.

All Foreman trucks/Job site offices.

All employees are allowed access to the written IIPP.

The term "access" means the right and opportunity to examine and receive a copy.

Access to the IIPP shall be provided by doing one of the following:

Provide access in a reasonable time, place, and manner, but in no event later than 5 business days after the request for access is received from an employee or designated representative.

The term "designated representative" means any individual or organization to whom an employee gives written authorization to exercise a right of access

F - MOUNTAIN CASCADE SAFETY MISSION STATEMENT

At Mountain Cascade, we value people and are committed to providing an injury free workplace. We place a primary emphasis on the well-being of our employees, subcontractors, the general public, and our customers' employees. We will conduct all operations in a safe and environmentally responsible manner and will not compromise our safety values in the execution of our work. **SAFETY IS NO ACCIDENT!**

Rickey Arslanian

F – 1 RESPONSIBILITY AND ACCOUNTABILITY

The Injury and Illness Prevention Program “IIPP” Administrator, Rickey Arslanian has the authority and responsibility for implementing the provisions of this program for Mountain Cascade, Inc.

EXECUTIVE OFFICERS:

- Dedicate Resources to the Safety Program
- Assign responsibilities, authority and accountability
- Take appropriate actions to support the Safety Program
- Conduct periodic performance reviews

AREA MANAGER

- Support the Safety Program
- Coordinate pre-planning meetings for project safety
- Dedicate project resources for safety
- Conduct periodic safety performance reviews of projects

SAFETY DEPARTMENT:

- Act as a resource to the company on safety
- Develop and maintain the safety program
- Develop and implement Safety Training Programs
- Assist in Project Safety Planning
- Conduct routine inspections of projects to identify hazards and abatement methods
- Prepare project and company safety analysis for CEO and Operations

SUPERINTENDENTS DEVELOP PROJECT PLAN:

- Responsible and accountable for Project Safety
- Schedule and coordinate pre-planning meetings for the project
- Monitor safety performance on the project
- Conduct walk-throughs to identify and correct hazards
- Take progressive disciplinary actions when appropriate
- Coordinate project safety meetings
- Conduct personnel orientation

FOREMEN:

- Responsible and accountable for Project Safety
- Monitor safety performance on the project
- Identify and correct hazards
- Responsible and accountable for their crew and Project Safety
- Plan and provide written Safety Plan for their task/area
- Train and monitor individual's safe work practices
- Conduct weekly and daily toolbox safety meetings
- Assure personnel have and use appropriate Personal Protection Equipment (PPE)

WORKFORCE PERSONNEL:

- Attend orientations, weekly and daily safety meetings
- Follow company and project safety rules
- Use safety equipment supplied to them
- Do not proceed with work if unsafe conditions exist
- Participate in the Safety Program

F – 2 COMMUNICATION

We recognize that open, two-way communication between management and employees on health and safety issues is essential to an injury-free, productive workplace. The Following system of communication is designed to facilitate a continuous flow of safety and health information between management and employees in a form that is readily understandable and consists of one or more of the following items.

- New worker orientation relative to portion of the Safety Program, the IIPP (including the Code of Safe Practices), and the current Job.
- Training programs
- Contact Safety Director immediately
- Distribution of the Safety Director’s work telephone numbers for private or anonymous discussions
- Weekly toolbox meetings. (see Appendices)
- Announcements, Articles and memos attached to the toolbox meetings’ topics and/or to employees’ paychecks
- Post information in Job Trailers, the Main Office kitchen, and Shop break room
- Oral conversations and trainings
- Quarterly “Foremen” meetings
- Written jobsite inspection evaluations provided to Foremen and Senior Management
- Annual reviews of Foremen to rate effectiveness in their applications of the Safety Program

It is the policy of Mountain Cascade to encourage all employees to report hazards existing at their workplace/jobsite to their Foremen/Managers or Safety Director so that corrective action can be taken in a timely manner. Mountain Cascade’s procedure will be for employees to report hazards verbally to their Foreman/Manager. The Foreman/Manager will document the hazard and corrective action needed or taken. The Safety Director will review the hazard and corrective action documentation, add input as necessary, and follow up to ensure corrective action is completed.

Employees who report such conditions will not be disciplined nor will they suffer any reprisal due to their actions.

F – 3 HAZARD ASSESSMENT

The goal of this IIPP is to identify and evaluate unsafe work conditions and practices so that the accidents, injuries, and job-related illnesses are minimized, if not completely eliminated. To this end, Mountain Cascade has instituted the procedures described in this section of the IIPP.

- Periodic inspections to identify and evaluate workplace hazards will be performed by the following competent persons.
- The Safety Director will perform random scheduled inspections on selected Mountain Cascade jobs. A written record will be made available to the Foreman and senior management of each visit. Inspections can range in scope, duration, and frequency depending on the location, size, and complexity of the job.
- Foremen must inspect their jobs every morning prior to working and after a new hazard is recognized, such as a change in weather or the discovery of a hazardous material or atmosphere. Inspections are not required to be written; however, pertinent information such as soil type, trench slope, and miscellaneous conditions pertinent to safety should be noted in the Foreman’s diary.
- Superintendents, Area Managers, and Vice Presidents will inspect jobs upon each visit, and will complete a written report, including hazards identified and corrective action required.

Inspections will be conducted at the following intervals, in addition to those times mentioned above:

- At the effective date of this program
- Bi-Weekly on all current jobs
- Whenever a new substance, process, procedure, or equipment is introduced into the workplace that represents a new occupational safety and health hazard
- Whenever Mountain Cascade is made aware of a new or previously unrecognized hazard

The following approaches will be used periodically to further evaluate the workplace:

- Checklist specific to jobs, tasks, or operations
- Monthly inspection conducted by the Safety Director and inspections of selected jobsites by the insurance company and/or insurance broker
- Records review (including workers' compensation summaries, OSHA Logs, accident reports, injury reports, and Hazard Communication Program) by the Safety Director and other management personnel
- Other mean of evaluating (i.e. input from safety meetings or from Foremen and Managers)

F – 4 ACCIDENT INVESTIGATION

When employee accidents, injuries, or illnesses occur on the job that require medical care, they will be thoroughly investigated with 24 hours of occurrence/knowledge by the Foreman or Manager responsible, assisted by the Safety Director as necessary. The investigator(s) will complete the Employee Accident Investigation Form that is attached to the IIPP and DWC form. The investigation will determine at least the following:

- Who and what was *directly* involved in the accident
- Who and what was *indirectly* involved in the accident
- Where and when the accident occurred
- The cause of the accident, if known
- Steps/procedures to take to prevent recurrence, if known

Copies of the completed Injury/Illness investigation form and DWC-1 form will be sent to the Safety Director, by the Foreman or Manager. The Safety Director will then complete the First Report of Injury/Illness form. The completed First Report of Injury/Illness and DWC-1 forms will be forwarded to Mountain Cascade's workers' compensation insurance carrier.

Procedures for investigating workplace accident, injury/illness or property damage and hazardous substance exposures include:

- Foreman or Manager will investigate all injury and property damage accidents and turn in an Injury/Illness Report within 48 hours of the date of incident. Serious injuries (as defined by CAL/OSHA) *must* have reports turned in within 24 hours. Accidents involving legal representation or subcontractors may not require a written report from the Foreman or Manager. Check with your Area Manager.
- The Safety Director will evaluate all Injury/Illness and Property Damage reports and make the President aware of the need for corrective actions if necessary

- The Safety Department will evaluate all Property Damage and Liability accidents once a Property Damage/Personal Injury Report has been completed by an Area Manager, Superintendent or Foreman (See Appendices)
- The Safety Director and/or Senior Management may complete post-accident investigations. Investigations of a catastrophic nature will be investigated by the Safety Director, Mountain Cascade legal counsel, and/or an appropriate governing agency.

F -5 HAZARD CORRECTION

All unsafe or unhealthy work conditions, work practices, and work procedures identified will be evaluated and corrected in a timely manner, as determined by the severity of the hazard. Under no conditions will Mountain Cascade personnel be required to, or permitted to, work under conditions which pose a clear or imminent hazard.

Hazards will be corrected immediately upon discovery, by the Foreman or Manger responsible for correction. Hazards that cannot be corrected on the same day/work shift will be documented by the Foreman or Manager. The documentation will include the name of the person initiating the action and date, a description of the unsafe or unhealthy condition, the correction action needed, who will perform the corrective action, and the expected date of completion.

Problems that cannot be correct immediately will be communicated to the Safety Director to ensure completion of the corrective action. Once corrected, written documentation of the action taken will be completed by the Foreman or Manager and forwarded to the Safety Director.

When an imminent hazard exists, which cannot be immediately corrected without endangering employees and/or property, the following steps will be followed:

- Remove all potentially endangered employees
- Provide employee(s) responsible to correct the condition with necessary safeguards
- Correct the problem
- Document the corrective action and date corrected in accordance with this Section. The Documentation will be completed by the Safety Director or his designee. Documentation will be maintained on file by the Safety Director.

Engineering controls will be used first to eliminate or minimize unsafe or unhealthy work conditions. If engineering controls are impractical or infeasible, administrative controls will be used. If engineering controls alone, or in combination with administrative control, cannot adequately minimize the hazard, personal protective equipment shall be used.

Unsafe work practices and work procedures will be immediately corrected by providing affected employee(s) with retraining to be provided by the Safety Director or creating Manager.

All Operating Procedures will be reviewed at least annually, and whenever new chemicals or equipment are introduced into the system, or when there is a process change. When changes are made, affected employees will receive additional instruction, with documentation of instruction.

F – 6 TRAINING AND INSTRUCTION

All Employees, including Foremen and Managers, will have training and instruction on general and job-specific safety and health practices. Training and instruction shall be provided as follows:

- When the IIPP and portions of the Safety Program, including the Code of Safe Practices, are issued to new employees. (See Appendices – “Statement of Compliance” form and “Documentation of Initial Training” form)
- Paid training for Laborers and Operators is option via Click Safety
- Required Click Safety training for Foremen and Managers
- Formal and informal training given to individuals or small groups pertaining to job specific conditions
- Confined Space annual training and refresher training for designated employees, Foremen and Managers
- Paid tuition for outside vendor trainings offered as often as requested
- CPR/First Aid certification for designated employees, Foremen and Managers
- Quarterly “Foremen” meetings mandatory attendance
- To all employees given a new job assignment for which training has not previously been received
- Whenever new substances, processes, procedures, or equipment are introduced into the workplace that represents a new hazard
- When the IIPP and/or portions of the Safety Program are updated, or when an employee is promoted to hired into a supervisory position
- To foremen and Managers to familiarize them with the safety and health hazards to which employees under their immediate direction and control may be exposed. This training shall be provided by:
 - The Safety Director, assisted by designated consultants, for jobsite Foremen and Shop/Yard Managers on a quarterly basis at the main office or other location
 - The Safety Director, assisted by designated consultant, for the Area Managers on a quarterly basis at the main office or other location
 - Designated consultants for the Safety Director on a quarterly basis at the main office or other location

Foremen competency in any area of our work is determined by the Area Managers. Competency is based on experience and training.

F – 7 PERIODIC MEETINGS OF CONSTRUCTION SUPERVISORY EMPLOYEES

Mountain Cascade holds not less than quarterly meetings (“Foremen” Meetings) with all the company’s construction related supervisory personnel. The purpose of each of these meetings is to discuss safety problems and accidents that have occurred. The desired outcome of these discussions is the correction of safety problems and prevention of future similar accidents. The Safety Director or his management designee conducts these meetings. These meetings are held at the Mountain Cascade’s main office or an alternate, pre-arranged location. Each meeting will be documented.

F-8 TOOLBOX/TAILGATE SAFETY MEETINGS

Mountain Cascade's Superintendent or Foreman at each jobsite conducts Toolbox/Tailgate safety meetings with all MCI jobsite personnel once every week. The topic to be discussed will be pertinent to the operations/work taking place or to be conducted. Topics may either be selected by the jobsite's Superintendent, Foreman, Area Manager, or the Safety Manager or Director. Each Toolbox/Tailgate meeting will be documented with the same detail as other training and instruction given.

F-9 RECORDKEEPING

Mountain Cascade is on a designated high hazard industry list. We have taken the following steps to implement and maintain our IIPP:

- Hazards noted on formal jobsite inspection forms, typically derived by the Safety Director, are maintained for a period of one year
- Documentation of training provided by Mountain Cascade will be maintained for a minimum period of one year
- Citations issued per our Disciplinary Program will be maintained for a time period determined by the Safety Director
- Employees verify that they have not continued to work without reporting all work-related injuries to their Foreman or Manager in the following ways
 - Signature affirming the "no work injury" on the weekly toolbox meeting form
 - Signature on the back of their weekly paycheck
 - Signature upon hire after reviewing Code of Safe Practices rule #18
 - Signing a Daily Time Sheet

F-10 DISCIPLINARY POLICY

Policy – Cal/OSHA requires a disciplinary policy for all company safety programs. This disciplinary policy emphasizes the personal responsibility that every single employee has in complying with the Mountain Cascade safety program.

First Written Warning – A written warning will be issued for the first violation of the Company's Code of Safe Practices. One copy of the written warning will be furnished to the violator and one maintained in the company records.

Second Written Warning with 2 Day Suspension – A written warning will be issued for a repeat violation or a violation of another of the company's Code of Safe Practices within a rolling 12-month period. One copy of the written warning will be furnished to the violator and one maintained in the company records. Superintendent/Forman/Supervisor will also be issued a written warning by the Safety Director.

5 Day Suspension or Termination - A third violation of the same offense or other offense within a rolling 12 months of the first violation will result in either termination or 5-day suspension on the infraction as determined by Senior Management. Within the Code of Safe Practices, there is a short list of practices which if violated will result in immediate suspension or termination. Superintendent/Foreman/Supervisor may also be issued a second written warning with a 2-day suspension at the discretion of the Safety Director and Senior Management.

CODE OF SAFE PRACTICES

A - CODE OF SAFE PRACTICES

Mountain Cascade, Inc. is committed to providing a safe place of employment for each employee. Our primary goal is to furnish training and the tools necessary for you to complete each day's work safely. You must read this Code in its entirety, and sign-off your acknowledgement and understanding before beginning any work for our company.

If you have a safety problem related to the job, see your Foreman or Manager. If the problem is not corrected notify the Safety Director. Each person is expected to work and utilize all tools and equipment in a safe and sane manner. The following Code of Safe Practices is designed to provide guidance in work procedures.

The Injury and Illness Prevention Program, the Code of Safe Practices and all safety related topics are communicated through weekly jobsite meetings. Field Foremen or Managers pass down company directives and concerns, discuss job specific safety concerns and also listen to concerns expressed by employees. Safety Meetings are held every Thursday. Time between meetings shall not exceed ten (10) working days. We expect you to attend and encourage your active participation. All attendees are required to sign the safety meeting sheet acknowledging that such a meeting occurred. Supplements to toolbox meetings are ongoing educational trainings offered throughout the year. Notices for training are communicated through Foremen and Managers radios and memorandums. Recordkeeping regarding all training offered and attended is ongoing and continuous.

1. Every trench and excavation five (5) feet or more in depth, in all types of soil, must be properly shored, sloped or benched to protect against the danger of cave-ins before you enter the trench or excavation.
 - Foremen with competent person training will inspect every trench daily. Inspection will be conducted prior to working, and as often as necessary if soil conditions change.
 - When working around trenches or excavations there will be at a minimum one trained competent person.
2. When you are working in a trench four (4) feet or more in depth, make sure that a ladder is provided within twenty-five (25) feet of travel distance of where you are working.
 - Arrange your work so that you are able to face the ladder and use both hands while climbing.
 - Ladders must extend three (3) feet beyond the climbing surface.
 - Keep and utilize ladders properly in and around trenches and excavations.
3. Climbing on trench shoring or bracing is strictly prohibited.
4. No one shall cross over a trench that is wider than 30" and deeper than 6' without using a walkway or bridge with standard guardrails.
5. Obey all warning signs, such as "**KEEP OUT**", "**NO SMOKING**", "**EYE PROTECTION REQUIRED**", "**AUTHORIZED PERSONNEL ONLY**", etc.
6. Personal protective equipment, including safety glasses and foot protection must be worn on the jobsite.
 - Employees must wear a "Hard Hat" and "Reflective Garments" at all times when outside of vehicles or heavy equipment on the jobsite.
 - Clothing covering chest and legs is required at all times.
7. Ear protection is required and provided where hearing hazards are present.
8. No one will operate powered-actuated tools or any equipment until they have received formal, documented training by the manufacturer or vendor.
9. Use all safety devices provided for your protection.
10. Workers shall be alert to see that all guards and other protective devices are in their proper places and adjusted, and shall report deficiencies promptly to the Foreman or Manager.
11. Tampering with or disabling any guards on hand tools, equipment or machinery is prohibited.
12. Do not use compressed air or oxygen to blow dust or dirt from clothing.
13. Gasoline shall not be used for cleaning purposes.

14. No burning, welding, or other source of ignition shall be applied to any enclosed tank or vessel, even if there are some openings, until it has first been determined that no possibility of explosion exists, and authority for the work has been obtained from your Foreman or Manager.
15. Any damage to supporting structures must be repaired or reported promptly to the Foreman or Manager.
16. Scuffling, horseplay, insulting behavior and other acts which may negatively affect their wellbeing or safety of other workers or their productivity are prohibited.
17. You are not permitted or required to work while your ability or alertness is so impaired by fatigue, illness, or other causes that you might be exposed to injury.
18. Before starting work, check for unsafe conditions. At the end of the day, be sure the area is safe and secure.
19. Clear the jobsite of any trash, excess material, protruding nails, form and scrap lumber, and all other debris that is not directly being used on a daily basis.
20. Know how to do your job safely:
 - Check your work area to determine what problem or hazard may exist.
 - Since your activity may endanger co-workers, the public or nearby equipment and materials, take all of the steps necessary to safeguard them.
 - Review the safety requirements for each work assignment as needed, with your Foreman or Manager.
21. A hazard that possesses harm to the public can never be left unattended. An employee must secure the hazard before leaving it unattended if there is a potential for the public to become trapped or injured in the area. Securing an area means being able to prevent a small child from gaining entry. If there is no means to secure the area then the employee must, before leaving, notify the Foreman or Manager that he or she is leaving the site and there is no means to secure it.
22. **YOU ARE REQUIRED TO IMMEDIATELY REPORT ALL WORK RELATED INJURIES AND ILLNESSES TO YOUR FOREMAN OR MANAGER AND COMPLETE THE "EMPLOYEE ACCIDENT INVESTIGATION REPORT" FORM (See Appendices).**
 - **FOREMEN AND MANAGERS ARE TO FILL OUT THE "INJURY/ILLNESS INVESTIGATION" FORM (See Appendices) WITHIN 48 HOURS AND TURN IN REPORTS UPON COMPLETION, UNLESS CIRCUMSTANCES DESCRIBED IN THE ACCIDENT INVESTIGATION SECTION OF THE IIPP OCCUR.**
23. In the event of any injury, report to the designated area for first-aid treatment. The Foreman or Manager shall Report and/or record all incidents.
24. You must know the location of the first-aid kit, fire extinguishers, SDS Hotline telephone number and rescue equipment.
25. Each Foreman will insist on his/her employees observing and obeying every rule, regulation and order that is necessary to the safe conduct of the work and will take such action as is necessary to obtain compliance.
26. Work will be well planned and supervised to prevent injuries in the handling of heavy materials and in working together with equipment. Proper lifting techniques must be used whenever you are required to manually lift and handle materials of any size, shape or weight.
27. Everyone should observe the following basic lifting techniques:
 - Get down close to the load.
 - Keep a straight back.
 - Lift gradually, using your legs
 - Don't twist or jerk while lifting.
 - Get help for bulky or heavy loads.
28. Workers shall not enter manholes, underground vaults, chambers, or other similar places that receive little ventilation, unless it has been determined that the air contains no flammable or toxic gases or vapors and contains adequate oxygen.
29. Workers shall not handle or tamper with any equipment, machinery, air or water lines in a manner not within the scope of their duties, unless they have received instructions from their Foreman or Manager.
30. Failure to follow practices, relating to your safety or that of fellow employees, or failure to safeguard equipment, tools, or materials properly may result in termination.
31. Reporting to work under the influence of Alcohol or Drugs shall result in immediate termination.

32. Ammunition and weapons are strictly prohibited from any portion of any job. Failure to comply will result in immediate suspension, pending investigation.
33. Cranes must be operated according to manufacturer's specifications, and only with current CCO certification.
34. No cell phones or ear plugs connect to radios are permitted while operating any equipment.
35. No person will be permitted to enter into confined spaces without an operable sniffer and appropriate training.
36. Maintain your sniffers.

JOBSITE OPERATIONS

A – TRENCHING AND EXCAVATION

1. Each supervisor and key employee, qualified by training and experience as a competent person, on your crew must have complete authority to suspend work activities and remove exposed employees from work locations where OSHA and company safety requirements are not being followed.
2. Whenever employees are working in a trench or excavation, their supervisor or designated competent person shall be the near proximity of the area where they are assigned to work.
3. The existence of underground utilities must be carefully considered. (See Utility Safety).
4. Each competent person must regularly inspect all open trenches and excavations in their designated work sites for signs of possible cave-ins and once again prior to permitting employees to enter the excavation (trench). In addition, each employee is required to inspect the trench walls for signs of possible cave-ins, such as cracking, bulging, or flaking, before descending into the trench, even though their competent person has already made a similar inspection of that particular area.
5. If evidence of cave-ins or slides are apparent, all work within the trench or adjacent to the face (wall) must stop. Work activities may be resumed only after all necessary safety precautions have been taken to correct the danger and inspected by the project supervisor and/or competent person for compliance.
6. Every trench and excavation five (5) feet or more in depth, in all types of soil, must be properly shored, sloped or benched to protect against the danger of cave-ins before you enter the trench or excavation. Differing sites or soil conditions may require shoring or sloping in a trench of lesser depth.
7. Your supervisor does not have the authority to require or knowingly permit any employee or subcontractor to enter any trench or excavation, which has not been properly shored, sloped or benched. Every employee including supervisors and key employees can be subject to disciplinary action and depending on their past safety performances with the company, may be terminated for non-compliance with safety requirements.
8. When a hydraulic shoring system has been adopted for employee protection, shoring must be installed according to OSHA safety standards.
9. A shoring system consists of uprights, held rigidly opposite each other against the trench excavation wall by braces, hydraulic cylinders, metal screw jacks or wood cross members, and longitudinal members, stringers/braces.
10. Uprights – You may select to use wood or a combination of metal/wood to construct a shoring system for a particular portion of a job site. The type and size of material to be used can only be determined after establishing the width and depth of the excavation (trench) and the type of soil condition (Stable, Rock, and A, B, C Soils).
11. An alternate sloping, shoring or benching system may be utilized on your job site. The alternate system must be designed by a California registered Civil Engineer and all plans, calculations and specifications must be available at the work site for immediate inspection. Special safety plans and procedures as well as training requirements must be implemented before any alternate system may be utilized.
12. If any employee or subcontractors' employee must enter an excavation (trench) which is deeper than twenty (20) feet, an alternate sloping, shoring or benching system must be adopted regardless of soil classification or duration of exposure.
13. When the soil conditions are not considered to be stable (self-supporting), a special trench shield or manhole box designed by a California registered Civil Engineer may be provided in lieu of other methods.
14. If a shoring system, trench, shield or manhole box is provided in lieu of benching or sloping, every employee must always stay inside of the protection when working in the excavation and carefully follow all safety instructions.
15. All pipes and other material which might roll or fall into the trench must be kept back at least two (2) feet and stored in such a manner that it will not roll or collapse.
16. You must not climb on trench shoring or bracing.
17. When you're working in a trench four (4) feet or more in depth make sure that a ladder is provided within twenty-five (25) feet of travel distance of where you are working.
18. Safe walkways or bridges, twenty (20) inches minimum width, must be located where crossovers are needed to ensure safe foot traffic by the public or employees.
19. Always examine the trench before commencing backfilling operations to prevent the possibility of trapping someone working in the bottom.
20. At no time can the minimum safety requirements be violated regardless of contrary orders by any supervisor. Even during a rescue operation, when time would not safely permit rigid adherence to these guidelines, you must utilize all available means to prevent the danger of cave-in and further injury to the victim or yourself.

21. Structural ramps used as a means of access or egress by employees shall be designed by a competent person and those used for equipment shall be designed by a competent person qualified in structural design.
22. Exposure to falling loads: No employee shall be permitted underneath loads handled by lifting or digging equipment. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped to provide adequate protection for the operator during loading and unloading operations.
23. Warning system for mobile equipment: When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have clear and direct view of the edge of the excavation, a warning system shall be utilized such as barricade, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.
24. Employees shall not work in excavations in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by the water accumulation. The precautions necessary to protect employees vary with each situation, but could include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use a safety harness and lifeline.
25. If an excavation interrupts the natural drainage of surface water such as streams, diversion ditches, dikes, etc., suitable means shall be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation. Excavations subject to turnoff from heavy rains will require inspection by a competent person.
26. Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operation, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees.
27. Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of scaling to remove loose material, installation of protective barricades at intervals where necessary on the face to stop and contain falling material, or other means that provide equivalent protection.
28. Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated. All inspections shall be documented daily.
29. Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

B – EXCAVATION/TRENCH RESCUE

1. Do not enter an unsafe, unstable excavation or trench.
2. Call/Send for help.
3. Give your name and exact location.
4. Have someone available to direct emergency vehicles, if practical.
5. Competent person will direct the stabilization of the area.
6. Properly slope/shore the area to prevent further cave-ins.
7. Rope off the area so the area is secured.
8. Once stable and safe, hand dig around the victim. Do not pull victim out while still partially buried.
9. Account for all employees.
10. Apply first aid, until emergency vehicles arrive.

C – PROTECTIVE SYSTEMS

1. Protective systems shall have the capacity to resist without failure all loads that are intended or could reasonably be expected.
2. Sloped excavations, five (5) feet or deeper shall be at an angle not steeper than $\frac{3}{4}$ horizontal to one vertical.
3. Employees shall not be permitted to work on the faces of sloped or benched excavations at levels above other employees except when employees at the lower levels are adequately protected from the hazard of falling, rolling, or sliding material or equipment.

4. Designs of protective systems using manufacturers' tabulated data shall be in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.
5. Support systems, shield systems, and other protective systems not utilized above methods shall be approved by a registered professional engineer, and at least one copy of the design shall be maintained at the job site during construction of the protective system.
6. Materials and equipment used for protective systems shall be free from damage or defects that might impair their proper function.
7. Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system.
8. Shoring shall be installed from the top down and removed from the bottom up. Members shall be released slowly so as to note any indication of possible failure of the remaining members of the structure or possible cave-ins of the sides of excavation.

D – SHIELD/TRENCH BOXES

1. Shields shall be approved by a registered professional Engineer.
2. Calculations for shield use shall be based on total depth of excavation and shall be kept at the job site.
3. Shields may be installed vertically, the full depth of the excavation. (Sloping shields shall be permitted, per OSHA regulations)
4. Shield may be stacked for deeper depths.
5. Shield systems shall not be subjected to loads exceeding those which the system was designed to withstand.
6. Shields shall be installed in a manner to restrict lateral or other hazardous movement of the shield in the event of the application of sudden lateral loads.
7. Employees shall not be allowed in shields when shields are being installed, removed, or moved vertically, and must be protected from cave-ins when entering or exiting the shield.
8. Excavations of earth material to a level not greater than two (2) feet below the bottom of a shield shall be permitted. The shield must be designed to resist the forces calculated for the full depth of the trench, with no indication of possible loss of soil from behind or below the bottom of the shield.

E – UTILITY SAFETY

1. USA must be called in 48 hours in advance of any excavation. You now can use 811.
2. Never assume that the plans or the utility company markings are correct as to depth or exact location of underground utilities. Use probes and hand tools to determine where the utilities actually are.
3. Use extreme caution when initially locating the underground utilities, even if the plans indicate where the utilities are, or are to be abandoned.
4. No smoking will be allowed in the trench.
5. After the utility has been exposed, properly support it for the duration of the project or until the trench is properly backfilled.
6. Take special efforts to backfill under the existing utility to insure that it won't break during compaction and paving operations.
7. If a gas line is hit by equipment but no apparent rupture the gas company still must be notified so they can check it for damages before we backfill.
8. If a gas line is broken, immediately extinguish all flames in the area, shut off all motors, divert or stop traffic in the area, call the Fire and Police Departments and the local utility, and clear all personnel away from the gas line.
9. Don't touch equipment with booms, which have the capability of contact high-voltage overhead power lines while in operation. (See Heavy Equipment)
10. When the excavation is proposed within 10 feet of a high priority subsurface installation, the excavator shall be notified by the facility owner/operator of the existence of the high priority subsurface installation before the legal excavation start date and time in accordance with Government Code Section 4216.2(a) and onsite meeting involving the excavator and the subsurface installation owner/operator's representative shall be scheduled by the excavator and the owner/operator at a mutually agreed on time to determine the action or activities required to verify the location of such installations. High priority subsurface installations are high pressure natural gas pipelines with normal operating pressures greater than 415 kPA gauge (60 p.s.i.g), petroleum pipelines, pressurized sewage pipelines, conductors or cables that have a potential to ground of 60,000 volts or more, or hazardous materials pipelines that are potentially hazardous to employees, or the public, if damaged.
11. Excavation shall not commence until the excavation area has been marked out in white paint and MCI has received a positive response from all known owner/operators of subsurface installations within the boundaries

of the proposed project; those responses confirm that the owner/operators have located their installations, and those responses either advise MCI of those locations or advise MCI that there are no conflicts.

G – PIPE JACKING AND TUNNELING

1. For casing or pipe diameters 30” or greater, arrange a pre-construction meeting with Cal-OSHA (Division of Tunnels and Mines).
2. For “potentially gassy” classifications, monitor confined space, (area in pipe), for explosive gas and oxygen content. Monitor and record findings at beginning of shift and every 4 hours thereafter. Post at site.
3. Provide minimum ventilation to and within twenty (20) feet of heading. Minimum supply = 200 CFM/employee + 100 CFM/BHP. Ventilation system shall be reversible.
4. Provide adequate lighting throughout installed pipe to illuminate interior as required.
5. Post laser light poster “Laser in Use”. Do not look directly into or at laser light. Use laser power below maximum power threshold.
6. Operate equipment only from designated stations. Keep hands and feet away from moving parts, Reinstall guards after servicing.
7. Maintain fire extinguishers on equipment in operating condition. When aiming discharge at base of fire.
8. Use earplugs when machine is operating.
9. Braking system shall be capable of stalling motor. Stop at each end of track are to remain in place. Haulage equipment shall not be operated with personnel on haul track.
10. Check welding cables and circuit. All connections, electrode holder, ground clamp, and cables shall be in their best operable condition. Wear proper attire during all welding procedures including full-face helmet, long sleeve shirts and welding gloves. Keep operable fire extinguishers near welding operation.
11. Store and transport cylinders in a vertical position. Open valves slowly, stand to side. Open acetylene one full turn. Turn valves off when not in use. Attire same as indicated above for burn protection. Use shaded lens safety glasses.
12. Only qualified operators are to inspect crane and rigging daily. Lubricate weekly. Use only in accordance with Manufacturer Specifications and Operator Manual. Tag line loads when needed. Use signalman when lead is out of operators’ view.
13. Set up crane on firm level ground. (Note: Losing just 3 degrees of level ground can reduce your load chart by 50%!) Use wood pads under outriggers. Locate crane at the closest safe proximity to the work. Operate crane within the load chart only.
14. Locate crane a distance equal to the boom length + 15’ away from existing lines
 - o Maintain minimum separation from aerial lines based upon voltage or ten (10) feet whichever is greater.
 - o Use spotter when operator’s view does not provide good judgment of separation.
 - o Have lines shut down and suspend operations until crane is within a safe working distance.
15. If a gas inflow is detected by personnel within tunnel immediately put on “self-rescue” respirator. Exit tunnel. Walk out – do not use power equipment or transporters.
16. Personnel unable to exit on their own-man-down (See Emergency Response) . **Contact Emergency Services – 911**. Survey the scene. Secure any visible hazard. Enter confined space only after testing the space atmosphere for oxygen content and explosive or toxic gas. Enter tunnel with SCBA rescue gear but maintain contact with outside personnel while removing affected personnel. Determine the nature and extend of injury or damage. Provide first aid unit ERT personnel arrive. Secure the site and equipment. Contact and advice company and client supervisors. Prepare written report of incident: When, What, Why, Where, Who and How. Obtain witness name(s) and addresses. Photograph the incident scene.

H – MATERIAL HANDLING, STORAGE AND DISPOSAL

1. Before releasing the binders on a loaded truck you must be certain that the load will not shift once released. Whenever possible, a special binder will be installed around everything except the top layers, or until each layer is wedged before releasing the load binders. It is important that the top layer be secured in such a way to prevent the skids and/or pallets from flipping the load.
2. Employees must never place their hands between the slings or chokers and/or load and other pinch-points when rigging or handling loads without proper protection from injury.
3. Crating materials, banding straps, etc. must be properly disposed of to prevent needless tripping hazards for all workers and the general public.

4. Wire rope cables and slings must not be used without at least three (3) “U” clamps properly installed.
5. Any wire rope which has been crushed, frayed, or otherwise weakened must be removed from service, and “Red Tagged” with a description of the defect on the tag, and returned to the construction yard for repair and/or replacement.
6. All materials must be properly stacked and secured by blocking, staking, banding, interlocking tiers or other means to prevent rolling, tipping, sliding, falling or collapsing.
7. The storage of materials must be not obstruct a safe means of travel throughout storage areas, aisles, stairs, ladders or other passageways and around building or other structures.
8. Special consideration must be taken to insure proper control of foot and vehicular travel by use of barricades, special banding, flashing lights, etc., especially if they are going to be left unattended adjacent to any public walkways or roadways.
9. Flammable and combustible liquids (gasoline, diesel, etc.) must not be left in a location where they can be struck by a moving vehicle traveling on any designated roadway or public street.
10. Motorized or special handling equipment must be used to move heavy or bulky objects to prevent back injuries.
11. No pipe, pre-cast manholes or similar building materials shall be moved over any trench area until all crew members are standing in a safe location and ready to receive and handle the load.
12. Loads must not needlessly be swung out over any person, vehicle or equipment. Loads subject to twisting or striking other persons or objects must be controlled by tag lines when necessary to safely control them.
13. Piles or stacks of pipe, lumber, steel or other materials shall be maintained so that they are stable form falling or collapsing.
14. Only rated chains will be used when lifting materials.
15. Chains will be taken out of service when damaged, (i.e. worn, cut or elongated), or rating tag is missing.

I – HOT MATERIAL HANDLING

1. Shirt sleeves must be down and buttoned.
2. Protective gloves will be provided and must be worn.
3. When it is necessary to carry hot materials:
 - Move cautiously over rough or uneven ground.
 - Do not pass them over anyone working in a ditch.
 - Do not carry them up or down ladders.

J – TRAFFIC CONTROL AND FLAGGING OPERATIONS

1. Traffic Control /Flagger Policy:
 - A suitable traffic control plan must be developed for guarding work areas adjacent to all public streets before the work in the area can begin.
 - Every reasonable effort must be taken to minimize worker exposure to moving traffic. All discussions and planning should take place off the street or highway.
 - All work areas must be separated from foot and vehicular traffic. If practical, designate a safe means of access for foot traffic around obstructions such as ditches, holes, stored materials, etc., especially on all busy streets and sidewalks.
 - Traffic conditions must be carefully observed when working adjacent to any type of heavy equipment or traffic and extreme caution must be exercised when placing warning devices.
 - Warning devices must be placed before positioning equipment or materials and starting work. All warning devices should be set up in such a manner that they will no create a hazard for foot or vehicular traffic. The protection prescribed for each situation shall be based on speed, volume of traffic, duration of operation and exposure to hazard.
 - Where motorists cannot see the work area from the location of the initial warning sign because of hills, curves, trees, parked vehicles, or other obstructions, a high-level warning sign with flags and./or intensity flashers must be placed at that location. This is in addition to those warning devices, which are normally required for all work areas.
 - Additional warning devices must be used in locations such as crowded streets and dangerous or heavily traveled highways, as needed. If placing additional devices will not afford adequate protection , or if the use of sufficient warning devices is not practical, a flagman must be stationed at a location(s) that will permit traffic to be given sufficient warning ahead of the work area.
 - Flagmen must be constantly alert, trained in flagging techniques and provided with adequate traffic-control and other safety devices.

- Reflective garments or safety colored vests and/or t-shirts must be worn on job site.
2. Traffic Control for Public Streets and Highways
- Where a hazard exists to employees, because of traffic or haulage conditions at work sites that encroach upon public streets or highways, a system of traffic controls shall be instituted to control/reduce the hazard.
 - Specifications for the size and design of signs, lights, and devices used for traffic control shall be as described in the “Manual of Traffic Controls for Construction and Maintenance Work Zones”, published by the State Department of Transportation.
 - Employees (on foot) exposed to hazards of vehicular traffic shall wear orange, strong yellow-green or fluorescent versions of these colored warning garments such as vests, jackets, or shirts. During rainy weather, employees exposed to the hazards of vehicular traffic may wear orange, strong yellow-green or yellow rainwear.
 - During hours of darkness, warning garments shall be retro reflective. The retro reflective materials shall be visible at a minimum of 1,000 feet. The retro reflective clothing, or the retro reflective material added to the clothing, shall have a minimum of one horizontal strip around the torso. White outer garments with retro reflective material that meets the above requirements may be worn during hours of darkness in lieu of colored vests, jackets and/or shirts.
3. Flaggers
- Flaggers shall be utilized at locations where other methods of traffic control are inadequate to warn and direct drivers.
 - When Flaggers are required, they shall be placed in relation to the equipment or operation so as to give effective warning.
 - Placement of warning signs shall be according to the “Manual of Traffic Controls for Construction and Maintenance Work Zones”, published by the State Department of Transportation.
 - Flaggers shall wear orange, strong yellow-green or fluorescent versions of these colored warning garments such as vest, jackets, or shirts. Rainwear, then worn, shall be orange, strong yellow-green, or yellow. During the hours of darkness, flaggers’ stations shall be illuminated such that the flagger will be clearly visible to approaching traffic.
 - Flaggers shall be trained in the proper fundamentals of flagging moving traffic before being assigned as flaggers. Signaling directions used by flaggers shall conform to the “Manual”. The training and instructions shall be based on the “Manual” and work site conditions and also include the following:
 - Flagger equipment which must be used
 - Layout of the work zone and flagging station
 - Methods to signal traffic to stop, proceed, or slow down
 - Methods of one-way traffic control
 - Trainee demonstration of proper flagging methodology and operations
 - Emergency vehicle traveling through the work zone
 - Handling emergency situations
 - Methods of dealing with hostile drivers
 - Flagging procedures when a single flagger is used (when applicable)
 - Documentation of the training shall be maintained as required by the IIPP. Flaggers shall know the required points outlined on the Mountain Cascade Flagger Form and have training or experience which exceeds these minimum criteria. (See Appendix U)
 - Flaggers shall be trained by persons with the qualifications and experience necessary to effectively instruct the employee in the proper fundamentals of flagging moving traffic.
4. Flagger Safety Training – From Flagger Safety Handbook – 9-26-06
- Personnel – All flaggers shall know the fundamentals of flagging before being assigned as a flagger.
 - Flagger Equipment
 - A **STOP/SLOW** paddle (C28A &B) in good condition
 - Advance warning signs
 - Channelizing devices, such as cones
 - A method of communication
 - Drinking water
 - Work Zone Layout and Flagger Station

- All advanced warning signs shall be equipped with beacons for nighttime closures, as indicated on Traffic Control Plan
 - Use approved transitions to channelize traffic from normal path to a new path
 - An activity area should consist of a work space, traffic space, buffer space, and a termination area to return traffic to the normal traffic path
 - Flagger Station
 - Shall have the proper advance warning signs
 - Shall be visible to approaching traffic at all times
 - Have an escape route
 - Adequate lighting – away from shadows during the day, and well-lit at night
 - When flaggers are no longer needed, be sure to cover, turn, or remove “**FLAGGER AHEAD**” and “**PREPARE TO STOP**” signs
 - Park all vehicles away from the flagger station
 - Keep the flagger station clean – eliminate distractions like chairs, books, or radios
 - Hand-Signaling Procedures
 - Tell the driver what action to take, use standard hand and paddle signals
 - The following methods of signaling for **STOP**, **SLOW** and **GO** should be used
 - **STOP** – Stand on the shoulder, stop sign facing traffic with arm outstretched and palm toward the traffic until the first car is stopped, then move to center of the road,
 - **SLOW** – Slow sign facing traffic, arm outstretched and palm down, move hand and arm up and down in a pumping motion. Stand on the shoulder facing the traffic.
 - **GO** – Slow sign facing traffic, arm in a sweeping gesture, then end the sweep by directing traffic. Stand in the lane when traffic uses the left lane and, on the shoulder, when traffic uses the right lane.
5. Method of One-Lane, Two-way Traffic Control
- One-way traffic control can be handled by a single flagger or by a flagger at each end of the work zone. A pilot car or official car is used with flaggers for lengthy work zones.
 - Single Flaggers
 - The flagger station should be located on the shoulder opposite the work space or in a position where good visibility and traffic control can be maintained.
 - other end.
 - Traffic is normally light to avoid the possibility of opposing traffic arriving at the traffic control zone at the same time.
 - Two Flaggers
 - The flaggers should be able to communicate orally or with hand signals.
 - Radios may be desirable even when visual contact is possible,
 - Signals between the flaggers should not be give the wrong message to motorists.
6. A Demonstration of Proper Flagger Methodology and Operations
- Flagger shall be able to demonstrate the proper use of the **STOP/SLOW** paddle and hand signals to be used to direct traffic.
 - The **STOP/SLOW** paddle shall always be held by the flagger and never placed in a traffic cone or on a barricade.
 - Never flag from inside a vehicle. Do not lean, sit, or lie on a vehicle.
 - Operations
 - Location and visibility are very important in flagging operations.
 - Flagger station should be on the shoulder and opposite to the active work area.
 - Flagger should not stand next to the active work area.
 - The flagger should be easily identified by drivers and not confused with other workers in the area.
 - Do not blend with the background.
 - Stand alone. Do not allow other workers to congregate around the flagger station.
 - Place personal items out of the way, so they will not distract approaching traffic or block your escape route.
7. Emergency Situations
- Establish a warning signal for the work area crew in case of an emergency.
 - Emergency Vehicles

- When informed in advance of an approaching vehicle, the flagger should clear an unimpeded path for the emergency vehicle by stopping traffic from all directions.
 - When no advance notice is given, first stop the emergency vehicle; stop all traffic including construction equipment to provide a clear path for the emergency vehicle to pass.
 - When the type of work, such as blasting or excavation makes the roadway impassable, advance arrangements should be made with the local police agency that has jurisdiction over the roadway.
 - Violations
 - Flagger must know how to handle violations of traffic control, crashes, or accidents in traffic control zone and emergency flagging operations.
 - Warn the construction workers that a driver has run the flagger station.
 - Stop all vehicles entering the work area, but do not put yourself in an unsafe situation.
 - Prepare ahead of time for this possibility.
 - Plan your escape route in an emergency.
 - Traffic Accidents
 - Notify your supervisor and call for help
 - If an accident happens in the line of waiting traffic, stay at your station and continue to control traffic until you receive instructions from your supervisor or a police officer.
 - If an accident happens within the controlled area, hold approaching traffic and follow instructions from your supervisor, any flagger, or from a police officer.
 - Flaggers are to communicate with each other before releasing or stopping traffic.
8. Methods of Dealing with Hostile Drivers
- Be courteous and professional.
 - Do not get involved in an argument with motorists or pedestrians.
 - If a motorist fails to follow your instruction and threatens the safety of the work area, note the vehicle license number and description of the vehicle and driver.
 - Report the information to your supervisor for the purpose of filing a police report.

K – LADDERS

1. All ladders are to be inspected frequently and repaired or removed from use immediately upon the discovery of any significant defect.
2. Stepladders are to be used only when legs are fully extended and firmly placed.
3. NEVER stand on the top two (2) steps or last rungs of a stepladder. Get a longer ladder to reach your work.
4. Extension ladders and job-built ladders must reach at least three (3) feet beyond the edge of the landing area.
5. Extension ladders shall have safety feet attached except where this might impede implantation such as in a trench. All ladders will be firmly placed and set or supported evenly.
6. NEVER use metal ladders when working on or near live electrical wires or energized equipment. Mark ladders with warning of this danger.
7. Always face the ladder and use both hands while climbing – do not carry materials or tools up or down a ladder.
8. Ladders shall not be place in front of doors, opening toward the ladder except when the door is blocked open, locked, or guarded.
9. Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height.
10. Employees shall be prohibited from using ladders that are broken, missing steps, rungs, cleats, broken side rails, or other faulty equipment.
11. Ladders shall be used only for their intended purposes.
12. Do not adjust extension ladders except while standing at the base.
13. You must not be more than 25 feet of lateral travel away from a ladder in a trench.
14. Ladders must be tied off or otherwise secure from movement.

L – LASERS

1. Post at least one “Laser in Use” warning placard at each laser location.
2. Turn the laser off when it is not required or it is left unattended for a substantial period of time.
3. DO not look directly into the laser or point the laser at another person unless a fan lens is in use and the viewer is at least 500 feet away.

4. Set the laser up well above the heads of employees when possible; otherwise set it up well below.

M – TRAINING REQUIREMENTS

No one will be required to perform any of the tasks below without proper training

1. Welding and Burning
2. Explosives and Blasting
3. Use of Powder Actuated Tools
4. Use of Pressure Tanks
5. Pipe Jacking and Tunneling
6. Fire Extinguishers
7. Crane Operations
8. Heavy Equipment Operations
9. Mechanical Work
10. Forklift Operations
11. Flagging
12. Confined Space Entry

N – GAS CYLINDER STORAGE, HANDLING AND USE

There is no such thing as an empty gas cylinder! Store and handle all cylinders as if they were full.

1. Store all cylinders in dry, well-ventilated area, out of direct sunlight, away from sources of heat, in a vertical position, with a chain or other device to hold them in place.
2. Store oxygen cylinders at least twenty (20) feet away from fuel gas cylinders or with a five (5) foot high, 60- minute rated firewall between them.
3. Do not allow the temperature of enclosed storage areas to exceed 125 degrees.
4. Do not accept delivery of cylinders from supplier unless valves are capped.
5. Only use cylinders manufactured and maintained in accordance with Interstate Commerce Commission regulations.
6. Cylinder caps are to be kept in place except when the cylinder is in use. "In use" means in the welding rig or cradle, secured in a vertical position.
7. Replace caps on cylinders when "empty".
8. Do not store cylinders near elevators, shafts, gangways, or stairways.
9. Do not store oxygen near other combustible materials, including oils, fuels, greases, carbides, corrosives, etc. **Contract between oxygen and any petroleum-based product can result in explosion or fire. Heat is not required!**
10. Never roll, skid, drop, or puncture a cylinder.
11. Never raise or lower cylinders to elevations with chain or fiber or rope slings, use a cradle only.

O – TRANSPORTING GAS CYLINDERS

For large quantities; have cylinders delivered to site or yard by supplier.

When transporting in company vehicles

1. Must have ventilation in event of leak.
2. Cylinders must always be secured in upright position, not in a ¾ position.
3. Caps of cylinders must not extend above highest point of vehicle (cab, rack, etc.).
4. Cover cylinders on hot, sunny days to prevent overheating.

P – WELDING AND BURING OPERATIONS

Trained and authorized persons will perform all welding and burning operations only. Welding of structural members of cranes, excavators, forms, false work, etc. will be performed by competent welders only.

1. Inspect the entire rig before using, including hoses, connectors, valves, gauges and regulators.
2. Never use excessive force to open or close valves.
3. Make sure valve wrenches are attached to the welding rig at all times during welding operations.
4. Open cylinder valves for immediate use only. Close them completely, immediately following use.
5. DO not attempt to change, alter, or repair regulators.
6. Never allow acetylene cylinders to lie on their sides, because internal gases combine to corrode the mechanism of the valves.
7. Use the 1/7th rule in determining cylinder levels.
8. Never use petroleum products to lubricate oxygen cylinder fittings

9. Replace leaking, broken, burned or worn-out hoses immediately. If damaged in only on spot cut out the damaged area and splice the hose.
10. Never repair a damaged hose with tape.
11. Test for leaking hose by immersing in water. Never use soapy water or detergents as they may contain oil bases in the ingredients.
12. Never test for leaks by holding a flame near the suspected area!
13. Use the proper type and size hose for the job.
14. Use the proper color for the job – Green = Oxygen, Red = Acetylene, and Black = Air/Inert Gas.
15. Place hoses where they will not be damaged by other work, workers, tools, equipment, vehicles, etc.
16. Never attach an oxygen hose to a fuel cylinder or vice-versa.
17. Use cylinder or valve wrenches only for making connections. Never use pipe wrenches or pliers,
18. Never try to turn a hand wheel by hitting it with a hammer or wrench.
19. Watch the dial on the regulator for a moment after closing torch valves and regulator. If needle begins to move, replace the regulator and red-tag the old one.
20. Oxygen regulators should be equipped with a safety release valve to prevent flying parts if the diaphragm ruptures.

Q – PERSONAL PROTECTIVE EQUIPMENT WHEN WELDING

1. Wear welding rated protective glasses, goggles, during gas welding operations, or a helmet with a minimum #10 lens during arc welding, at all times. Sunglasses for either procedure are not permitted.
2. Cover all exposed skin to prevent burns.
3. Keep clothing free of all flammable substances, including solvents, greases, oils and fuels. Remember: cotton is fuel. Proper PPE dictates that you cover cotton clothing with appropriate leathers, aprons, etc.
4. Do not wear clothing with cuffs.
5. Keep pockets covered and closed.
6. Wear flameproof gloves or gauntlets.
7. Wear high-topped, fully laced, strongly made, leather shoes or boots.
8. Wear respirators rated for the hazards present in non-ventilated areas.
9. Place welding screens around the operation to prevent flash from affecting other workers or the public, especially drivers.

R – FIRE PREVENTION FOR WELDING OPERATIONS

1. NEVER weld or burn any tank, barrel, box, pipe, or container in closed area until contents have been identified and completely purged.
2. Clear all combustible materials from an area at least thirty-five (35) feet in diameter in all directions surrounding your work, if possible.
3. If combustibles cannot be removed, cover them with fire-resistant material.

4. Cover cracks or openings in floors and walls to prevent sparks and slag falling through. Shield walls from heat, flame, and slag.
5. Investigate the other side of walls before beginning. If combustibles are stored against the wall, move the material or shield the wall. If neither is feasible, assign someone as “fire-watch”.
6. Cover ventilators or air ducts to prevent fumes, smoke, sparks and slag from getting into them.
7. When welding in open air in windy conditions, shield the work to prevent sparks from carrying into a combustible area.
8. When possibility of fire exists:
 - Set a “fire-watch” ensuring the entire time of work and for 30 minutes following work.
 - The “fire-watch” must have a fire extinguisher present.
9. When welding or cutting in an elevated position, make sure flame and slag do not drop onto workers or flammable materials below.

S – GAS WELDING

1. Fuel, gas and oxygen hoses must be distinguished from each other.
2. Coupling must not disconnect by means of a straight-pull motion.
3. Oil or grease must never come in contact with oxygen equipment.
4. Never use leaking equipment.
5. Never use oxygen from a system without a pressure regulation device.
6. Gas cylinders must be protected against heat.
7. Gas cylinders in service must be secured up right and placed so they will not fall or be knocked over.
8. Oxygen cylinders in storage must be separated from fuel gas cylinders a distance of twenty (20) feet or by a noncombustible barrier five (5) feet high.

T – ELECTRICAL ARC WELDING

1. Only use equipment that meets UL or FM approval.
2. Inspect lead cable and work cable daily.
3. Inspect electrode holders for loose or damaged connections.
4. Before welding, review the composition of the fluxes, welding rods and coatings. Make sure they are correct for the task you are performing.
5. Repair damaged leads by splice only, never by tape.
6. If lead damage is within ten (10) feet of the electrode holder, replace lead.
7. Never allow leads to wrap around any part of your body.
8. Protect yourself from toxic substances created by the work.
9. Ground the frame of the welder and the metal you are working on.
10. Do not attach grounds to pipes or conduits carrying gases, flammable liquids or electricity.
11. Make your ground as close to the welder as possible.
12. Isolate yourself and the work from water, rain, groundwater, mist, ice, snow, fog, etc.
13. Do not touch metal parts in contact with the electrode with damp or wet clothing or bare skin. Keep work gloves dry.
14. Never douse electrode holders in water to cool them.
15. Disconnect the welder from the power source when changing polarity.

U – REGULATORS AND GAUGES

1. Regulators or reducing valves must be installed on all compressed gas cylinders before using.
2. Never force connections when hooking up your equipment. Only use regulators, valves, gauges and connectors specifically designed for the equipment you are using and the task being performed. Only use regulators listed as registered with UNDERWRITERS LABORATORIES (UL) or FACTORY MUTUAL LABORATORIES (FML).
3. Only use brass fittings.
4. Install flashback arrestors at the regulator.

V – SCAFFOLDING SAFETY PROGRAM

The following scaffolding safety policies and procedures have been drawn-up to assist in the prevention of incidents resulting from scaffolding operations.

1. Scaffolding Erection

- Erect scaffold (Scaffold Assembly) – erecting and dismantling scaffolds must be under the direction of and supervised by a competent person.
- Scaffold will be tagged “UNSAFE DO NOT USE” until the scaffold is completely assembled and inspected.
- All scaffolds must be erected level and plumb on a firm base. For indoor erection, ensure the surface(s) are clean and level. For outdoor erection, inspect the surface(s) for any evidence or wet soil or erosion. Check for soil compaction. Use wooden or concrete pads, minimum 2”x10”x10” or 1–1/8-inch-thick plywood, to support each base leg. For metal scaffolds, all stationary legs also must rest upon base plates. Adjusting screws shall not be extended more the 12 inches of thread. Adjusting or leveling screws may be used on scaffolds equipped with wheels.
- Use correct fasteners, pins, bolts, etc. All connections must be pinned and locked on metal scaffolds.
- Use correct planks. Scaffold planks will be made of “stress grade” wood, metal or aluminum. All wooden plank members used must carry the label “Scaffolding Grade”. Standard planks 2”x10” (nominal) will be used. Planks shall be in good condition, and free of cracks, knots, and other defects. The scaffold working surface shall be no less than 20 inches wide. Scaffold planks shall be laid close together, with no other openings in the platform except those necessary for the passage of employees and materials. Decking shall be secured against movement.
- Scaffolding planks shall extend over their end supports not less than 6 inches or more than 18 inches. Where planking overlaps, it shall overlap a minimum of 12 inches and be secured from movement. The working platform shall cover the entire space between the scaffold uprights, except for an open space under the back rail, maximum 8 inches for wooden scaffolds and 10 inches for metal scaffolds.
- Guardrails and toe boards shall be installed on all open sides and ends of platforms more than 7-1/2 feet above the ground or floor. Top rails shall be 2x4 inch wood stud or steel tubing, 42 to 45 inches above the platform, with 2x4 inch wood or metal tube mid-rails, halfway between the top rail and the platform. Top rails must be capable of sustaining a 200 lb. load and mid-rails capable of sustaining 150 lb. load (horizontal and vertical) without failure. Supports shall not be spaced more than 8 feet apart for medium duty metal scaffolds and 6-1/2 feet apart for heavy duty metal scaffolds. Toe boards shall be at least a nominal 4 inches high.
- Toe boards are required where workers work or pass below. In instances where people are exposed to operations involving flying debris/materials, a screen or paneling shall be installed from the top rail, extending along the entire opening. The maximum opening in the screen shall be 1 inch.
- Wooden pole scaffold work platforms shall be within 14 inches of the structure wall. Metal scaffold work platforms shall be no more than 16 inches from the structure wall.
- Secure scaffolds solidly. Tie off scaffolds, securely. For wooden scaffolds, ties shall connect to the inside upright, not more than 20 feet horizontally and vertically for light trade scaffolds, and not more than 15 feet horizontally and vertically for heavy-trade scaffolds. Metal scaffolds must be tied every 26 feet vertically and every 30 feet horizontally. Scaffolds must be tied off or stabilized with outriggers when the height of the scaffold platform is more than three times the least base dimensions.
- “X” bracing should not be used as part of the guardrail system on the top level of a metal scaffold. However, it may be used as part of the guardrail system at the intermediate levels on the scaffolding, if it is not more than 48 inches apart at the connections. “X” bracing is acceptable as a topsail if the intersection of the “X” occurs at 45 inches (± 3 inches) above the work platform, provided a horizontal rail is installed as a mid-rail 19 to 24 inches above the platform level. “X” bracing is acceptable as a mid-rail if the intersection of the “X” falls between 20 and 36 inches above the work platform.

- A safety factor of 4 shall be used, based upon the maximum expected load on the scaffold to adequately support the loads. Footing and or anchorage shall be sound, rigid, and capable of carrying the maximum intended load without settling or displacement.

2. Scaffold Access

- An access ladder, stairway, or equivalent safe access shall be provided to all scaffold platforms. Employees are not to climb up the side of the scaffold, unless the end frames are reasonably parallel and level with ground, there is sufficient clearance to provide good handholds and foot spaces, and the design of the exterior scaffold frame complies with Cal/OSHA requirements.
- Ladders must conform to ladder standards. Ladders must extend 3 feet above the platform level being accessed and tied off. First step shall be less than or equal to 24 inches. If a ladder is used, a rest platform will be placed at 35 feet. Ladder rung spacing will be less than 16-3/4 inches.
- If ramps are used to access platforms, they will be properly constructed with guardrails (top rail and mid-rail) and toe boards.
- Where there is no guardrail system. Employees will wear full fall arrest system. (safety harnesses, with shock absorbing lanyards or positioning lanyards)
- Stair tower use will be limited to personnel use only. Materials, tools and equipment will not be permitted on stair towers.

3. Scaffold Pre-Use Inspection

- Inspect the scaffold before you use it to be sure it is safe and without defects. Inspect the scaffold visually to determine, at a minimum that:
 - The topsails, mid-rails, and toe boards are in place when the work platform is over 7-1/2 feet from the ground. The work platform is planed over the full width of the scaffold frames.
 - There is a maximum 2-inch gap between adjacent planks.
 - Planks, guardrails, "X" bracing and structural members are free of defects.
 - At the back side of the work platform, the maximum gap is 8 inches for a wooden scaffold and 10 inches for a metal scaffold (e.g. one more 2"x10" won't fit).
 - Locking pins are in place at each joint.
 - All scaffold ties have proper tension and compression loads
 - Slippery or snow-covered scaffolding is cleared or sanded.

REMEMBER: Prior to any work being performed on a scaffold, a competent person must have inspected the scaffold for completeness. Check with your Foreman/Superintendent prior to working on any scaffold to ensure it is complete.

4. Scaffold Use

- All personnel will be trained in the recognition of electrical, fall, and falling object hazards associated with scaffolds, prior to using any scaffolds.
- Do not work on scaffolds without adequate guardrails, toe boards and planking. Employees must wear a full body harness and be properly tied off on any scaffold working platform over 7-1/2 feet high when the scaffold is not equipped with guardrails, mid-rails, toe boards or a complete deck (working platform).
- Do not climb on, or work from any scaffold handrail, mid-rail, or brace member. Use the ladder, stairway, ramp, or other equivalent safe access provided to safely access the scaffold.
- Do not stack any material higher than the height of the toe board, on the scaffold platform.
- Do not change or remove any scaffold components unless authorized by a competent or qualified person. Also, no scaffolding shall be moved, erected. Dismantled or altered except under the supervision of a competent person.

W – SAFETY PLANNING

1. Planning is the most critical element in development of a safe and productive project. A tool to facilitate this is the project safety plan and worksheet.
2. The Project Safety Plan is a guideline to hazards that may be anticipated on a project. By reviewing this outline we should be able to plan ahead to minimize potential delays, costs or safety problems.
3. Consideration must be given to working with our clients to develop project specific protocols when necessary. Protocols should emphasize interaction with, and lack of disruption to facility personnel and operations. Examples: Hospitals, Airports, High Tech, Owner Occupied.

4. Overall project safety plans should be developed corresponding to schedule milestones or phases of the project. For example, the initial (preliminary) project safety plan should be completed at least two weeks prior to mobilization of the project. Other phases include: substructure, superstructure and finish phase.
5. However, it may be more important to recognize critical coordination or high hazard phases of the project. It is prior to these activities that project safety planning will be most effective. Examples of these special emphasis plans would be: excavation, fall protection, steel erection, scaffolding, chemical use, confined space, lockout/tagout, cranes and rigging. Safety plans specific to these issues should be submitted to the project superintendent prior to start of this type of work process.
6. The first plan should be completed at least two weeks before mobilization of the project. This will allow time to follow through on items noted on the plan before actual work begins.
7. Representatives from estimating, operations, project team, yard, safety and labor relations may be involved, especially in preliminary project safety planning. The first planning meeting should be the Mountain Cascade Team. Subsequent meetings should involve individual or specific work-related groups of subcontractors.
8. Overall project safety plans should be completed by the project superintendent and operations manager. Resources such as the equipment manager, safety manager and integral subcontractors may be used to assist in plan development.
9. The Mountain Cascade Safety Program requires all subcontractors submit a written "project specific" safety plan to Mountain Cascade prior to any work starting. These plans should be updated corresponding to project phases and incorporated into the overall project safety plan.
10. The most important element of planning is to get all those directly involved together ahead of time to develop a plan that will work for all concerned to facilitate project, schedule, production, costs, quality, and safety.
11. Pre-task plans will be required. The frequency, process and format of the pre-task plan will vary with the project and complexity of the task. This will be reviewed during pre-award, pre-mobilization and/or subcontractor coordination meetings.



Project Name:
Job Number:
Job Address:
Job Phone/Fax:

PROJECT SAFETY PLAN

Instructions: Use the checklist below to identify major issues for incorporation into the project safety plan. Subcontractor Safety Plans shall be considered and where applicable, incorporated into the final overall project safety plan. The Safety Plan Worksheet should be used as a format to list potential hazards and abatement methods. Supplemental preprinted forms for high hazard work such as Fall Protection and Confined Space may also be completed as applicable and attached to the project safety plan. These are noted with an “*”. Each item identified on the checklist has a corresponding section that should be referred to in the Mountain Cascade Safety Manual. The project safety plan should be completed and/or updated prior to start of construction or with any major change in activity. The project safety plan should be a narrative of the projects anticipated hazards and controls/plans to eliminate these hazards as well as an overview of key safety, health, and environmental processes (i.e. orientation, safety group leader, traffic control, etc.).

Date:
Prepared By: (Name/Title)
Safety Plan Identity (Preliminary, Sub-Structure, Final)
Participants in Preparation of Plan (Ops, Superintendent, Safety, etc.)

Yes	N/A	
		* General Safety Rules
		* Subcontractor Safety Plans
		* Training
		* Safety Meetings
		* Emergency Medical Plans
		Water Intrusion/Mold Plan
		Environmental Issues
		* Inspections
		* Orientation
		Public Protection
		Housekeeping
		* Fire Protection
		Electrical
		* Demolition
		* Excavation
		* Cranes & Rigging
		* Fall Protection

Yes	N/A	
		* Ladders, Scaffolding, Lift Units
		* Lockout/Tagout
		* Chemical Management
		* Confined Space
		Hazard Communication
		Personal Protection Equipment (PPE)
		Back Injury Prevention
		Safety Posters
		Traffic Control
		Quality Control
		* Pre-task Planning Forms/Process
		Owner/Site Specific Concerns

Other Potential Hazards or Items not Covered (list)

Individual and/or group Pre-Planning/Coordination meetings should be held with subcontractors involved in high hazard work process. Examples: Demolition, Excavation, Structural Erection, Scaffolding, and Painting.

MASONRY CONSTRUCTION

CONCRETE AND MASONRY CONSTRUCTION

INTRODUCTION

The Cal/OSHA standards on Concrete and Masonry Construction set forth requirements which construction employers must comply with to protect construction employees from accidents and injuries. Such accidents and injuries could result from the premature removal of formwork, the failure to brace masonry walls, the failure to support precast panels, the inadvertent operation of equipment, the failure to guard reinforcing steel, and other related hazards.

SCOPE AND APPLICATION

The Cal/OSHA standards prescribe and Mountain Cascade, Inc. will adhere to performance-oriented requirements designed to help protect all construction employees from the hazards associated with concrete and masonry construction operations at construction, demolition, alteration and repair jobsites.

GENERAL REQUIREMENTS

Construction Loads

Employees will not place construction loads on a concrete structure or portion of a concrete structure unless the employee determines, based on information received from a person who is qualified in structural design, that the structure or portion of the structure is capable of supporting the intended loads.

Reinforcing Steel

All Protruding reinforcing steel, onto and into which employees could fall, must be bent over or guarded to eliminate the hazard of impalement.

Employees will take measures to prevent unrolled wire mesh from recoiling. Such measures may include, but are not limited to, securing each end of the roll or turning over the roll.

Reinforcing steel for walls, piers, columns, and similar vertical structures must be adequately supported to prevent overturning and collapse.

Post Tensioning Operations

Employees (except those essential to the post tensioning operations) are not permitted to be behind the jack during tensioning operations.

Signs and barriers must be erected by the performing contractor or Mountain Cascade if they are the performing contractor, to limit employee access to the post tensioning area during tensioning operations

Concrete Buckets

Employees are not permitted to ride concrete buckets.

Working Under Loads

Employees will not work under concrete buckets while the buckets are being elevated or lowered into position.

To the extent practicable, elevated concrete buckets will be routed so that no employee or the fewest employees possible are exposed to the hazards associated with falling concrete buckets.

Personal Protective Equipment

Employees are not permitted to apply a cement, sand, and water mixture through a pneumatic hose unless they are wearing hard hats and safety glasses or goggles.

Employees are not permitted to place or tie reinforcing steel more than six (6) feet above any adjacent working surfaces unless they are protected by the use of a safety harness or equivalent fall protection meeting Cal/OSHA standards.

Equipment and Tools

MCI has the following equipment and operations requirements during concrete, masonry and related work:

- **Bulk cement storage** bins, containers, and silos must have conical or tapered bottoms, and mechanical or pneumatic means to start the flow of material.
- **Storage facilities** must be barred from access by employees, unless the ejection system has been stopped, locked out, and tagged to indicate such systems are not to be operated.
- **Concrete mixers** with a capacity of one cubic yard (0.8m³) or more must have a mechanical device to clear the skip of materials and guardrails on each side of the skip.
- Manually guided, **powered and rotating concrete trowels** must have a control switch to automatically shut off power when the operator's hands are removed from the equipment handles.
- Handles of **Concrete buggies** must not extend past their wheels.
- Supports for discharge pipes of **concrete pumping systems** must support 100 percent overloads. Compressed air hoses of such systems shall be equipped with positive fail-safe joint connectors.
- Positive safety latches shall be installed on **concrete buckets** with hydraulic or pneumatic gates, to prevent premature or accidental dumping. The buckets also must be designed to prevent concrete from hanging up on the top and the sides.
- Section of **tremies**, and similar concrete conveyances, shall be secured with wire rope, in addition to their regular couplings or connections.
- **Bull float** handles must be made of non-conductive material, or insulated with a non-conductive sheath, to protect with energized electrical conductors.
- **Masonry saws** shall be equipped with semi-circular guards over the blades to retain blade fragments should blades shatter.
- Energy sources will be **locked out and tagged out** where equipment is maintained or repaired. The tags used shall read "**DO NOT START**", or have similar language.

POURED-IN-PLACE CONCRETE

General Requirements for Formwork, False Work and Vertical Shoring

Formwork, false work and vertical shoring must be designed, fabricated, erected, supported, braced and maintained so that it will be capable of supporting without failure all vertical and lateral loads that might be applied to the formwork, false work or vertical shoring. Formwork, false work and vertical shoring must be designed, fabricated, erected, supported, braced and maintained in conformance with the American National Standards for Construction and Demolition Operations – Concrete and Masonry Work (ANSI A10.9-1983 or most current ANSI Standard).

Design of Loads

Formwork and false work or shoring for the support of concrete or other materials shall be designed, erected, supported, braced and maintained so as to assure its ability to safely withstand all intended loads during erection, construction, usage and removal.

The minimum total design load for any formwork and shoring shall not be less than 100 pounds per square foot for the combined live and dead load regardless of slab thickness; however, the minimum allowance for live load and formwork shall be not less than 20 pounds per square foot in addition to the weight of the concrete. When the equipment listed below is used, the above figures shall be increased in all cases by the amounts shown:

- Worker propelled carts – 10 pounds per square foot.
- Motorized carts – 25 pounds per square foot.

Special consideration shall be given and the necessary additional allowances made for any unusual circumstances such as floor hoppers, concentrated piles of reinforcing steel bars, or similar loads.

The lateral loads for shoring to be resisted at each floor in both directions by diagonal bracing, or other means, shall be taken at not less than 100 pounds per lineal foot of floor edge or two percent of the total dead load whichever is greater.

Design Calculations, Working Drawings, Plans and Layouts

Detailed design calculations and working drawings shall be approved and signed by a civil engineer, currently registered in California, for all false work or vertical shoring installations where any of the following conditions exists

- The height, as measured from the top of the sills to the soffit of the superstructure exceeds 14 feet.
- Individual horizontal span lengths exceed 16 feet.
- Provisions for vehicular or railroad traffic through the false work or vertical shoring are made.

For all false work and vertical shoring installations not covered in the above paragraph, the false work plan or shoring layout shall be approved and signed by one of the following:

- A civil engineer currently registered in California.
- A manufacturer's authorized representative.
- A licensed contractor's representative qualified in the usage and erection of false work and vertical shoring.

A false work plan or a shoring layout shall be available on the jobsite at all times.

All shoring equipment (including equipment used in re-shoring operations) will be inspected prior to erection to determine that the equipment meets the requirements specified in the formwork drawings.

Damaged shoring equipment must not be used for shoring. Erected shoring equipment will be inspected immediately prior to, during and immediately after concrete placement. Shoring equipment that is found to be damaged or weakened after erection will be immediately reinforced.

Sills for shoring will be sound, rigid, and capable of carrying maximum intended loads. All base plates, shore heads, extension devices, and adjustment screws will be in firm contact, and secured if necessary, with the foundation and the form. Eccentric loads on shore heads are prohibited unless they have been designed for such loads.

If single-post shores are used one on top of another (tiered), then additional shoring requirements must be met. The shores must be as follows:

- Designed by a qualified designer and the erected shoring must be inspected by an engineer qualified in structural design.
- Vertically aligned, spliced to prevent misalignment, and adequately braced in two mutually perpendicular directions at the splice level.
- Each tier also must be diagonally braced in the same two directions.

Adjustment of single-post shores to raise formwork must not be made after the placement of concrete.

Re-shoring must be erected, as the original forms and shores are removed, whenever the concrete is required to support loads in excess of its capacity.

All vertical supports shall be erected on a properly compacted and reasonably level and stable base. Plate, pads and load bearing characteristics of the soil shall be adequate to support the imposed loads. Precautions shall be taken so that weather and concrete pouring conditions do not change the load carrying capacity of the soil below the design minimum.

When requested, Mountain Cascade will submit drawings, plans and other documentation evidence to Cal/OSHA to justify the design for any false work or vertical shoring installation.

Inspection of False Work and Vertical Shoring

After construction of the false work or vertical shoring system described in the 1st paragraph of the "Design Calculations, Working Drawings, Plans and Layouts" section above and prior to placement of concrete, an authorized representative of Mountain Cascade shall inspect the false work or vertical shoring system for conformity with the working drawings. The person performing the inspection shall certify in writing that the false work or vertical shoring system substantially conforms to the working drawings and that the materials and workmanship are satisfactory.

After construction of the false work or vertical shoring system described in the 2nd paragraph of the “Design Calculations, Working Drawings, Plans and Layouts” section above and prior to the placement of concrete, and inspection for conformity with the working drawings shall be made by one of the following persons:

- A manufacturer’s authorized representative, or
- A representative of Mountain Cascade qualified in the usage and erection of false work and vertical shoring.

In either case involving work completed in conformance with the 1st and 2nd paragraphs above, the person performing the inspection shall certify in writing that the false work or vertical shoring system conforms to the working drawings and that the materials and workmanship are satisfactory. The certification shall be maintained and available at the jobsite.

Work Are and Procedures

Where wood shores are butt spliced, they shall be made with square joints and secured on four sides with not less than 2-inch material or 5/8 inch plywood of the same width as the post. The scabs shall extend at least two feet beyond the joint.

If metal shore clamps are used, they shall be installed according to manufacturer’s specifications.

In lieu of requirements for standard walkways and work platforms in the immediate area where forms are being installed, joists or similar members not less than 5-1/2 inches wide and on centers not to exceed 36 inches shall be provided.

When the formwork and shoring are being erected, the first set of protective guardrails shall be installed at the perimeter immediately after such supporting members are in place. Railings are to be installed and maintained at perimeters of and at openings in all floors of buildings and sides of bridge decks at all times.

Building Floor Form Installation:

- Employees shall be prohibited from working below a building floor form installation, *except* for the individuals engaged in this installation, removal, or inspection. Warning signs to this effect shall be posted at the perimeter of the affected work area.
- During the actual placement of concrete, *only* those individuals who are engaged in the inspection or necessary building floor from modifications shall be permitted in the affect work area below concrete placement.
- Areas underneath building floor form installations, described in the 1st paragraph of the “Design Calculations, Working Drawings, Plans and Layouts” section above shall not be occupied before, during, or after the placement of concrete unless the building floor form installations have been inspected and certified by a civil engineer currently registered in California, to safely withstand all anticipated loads. All other building floor form installations shall be inspected and certified by Mountain Cascade or a representative qualified to determine that the floor form installation can safely withstand all anticipated loads.

Stripped forms and shoring shall be removed and stockpiled promptly in all areas in which employees are required to work or pass. Protruding nails, wire ties, and other form accessories not necessary to subsequent work shall be pulled, cut or other means taken to eliminate the related hazards.

Removal of Formwork and Shores

Formwork and shores (except those used for slabs on grade and slip forms) shall not be removed until Mountain Cascade determines that the concrete has gained sufficient strength to support its weight and superimposed loads. Such determination shall be based on:

- Compliance with the stipulated conditions for removal of forms and shores indicated in the plans and specifications, and
- The concrete has been properly tested with an appropriate American Society for Testing and Materials (ASTM) standard test method designed to indicate the concrete compressive strength, and the rest results indicate that the concrete has gained sufficient strength to support its weight and the superimposed loads.

Re-shoring shall not be removed until the concrete being supported has attained the strength to support its weight and all loads place upon it.

TILT – UP WORK

Framing & Concrete Forms

Framed panels for structures shall be securely anchored, guyed, or braced to prevent them from falling.

Form panels for concrete structures shall be securely anchored, guyed, or braced to prevent them from falling or collapsing. Panels exceeding 500 pounds shall have lifting attachments with a safety factor of 4. Nailed lifting attachments shall not be used.

Reinforcing steel shall not be used as guy attachments.

Hoisting & Erecting Precast, Prefabricated Concrete Panels

Precast concrete wall units, structural framing, and tilt-up wall panels will be adequately supported to prevent overturning and to prevent collapse until permanent connections are completed.

Lifting inserts that are embedded or otherwise attached to tilt-up wall panels will be capable of supporting at least four (4) times the maximum intended load applied or transmitted to them; lifting hardware will be capable of supporting five (5) times the load applied or transmitted to the lifting hardware.

Only essential employees are permitted under precast concrete that is being lifted or tilted into position.

To date, no hoisting and erection of precast, prefabricated concrete panels work has been performed by Mountain Cascade, but some such work may be performed in the future.

Tilt-up Concrete Panel Construction

Concrete erection stresses, lifting point attachments and locations in tilt-up concrete panels shall be designed for expected loads, including impact, by or under the direction of, of a civil engineer currently registered in California (hereinafter referred to as the responsible engineer).

Lifting inserts, which are embedded or otherwise attached to tilt-up concrete members, shall be capable of supporting at least two times the maximum intended load applied or transmitted to them, and shall be used in accordance with the manufacturer's recommendations.

Lifting hardware shall be capable of supporting at least five times the maximum intended load applied or transmitted to the lifting hardware.

Vertical panel bracing used to support the tilt-up panels prior to final bolting/attachment shall be designed by or under the direction of, and installed in accordance with the direction of the responsible engineer.

- Bracing shall be designed to withstand, at a minimum, a wind load induced force of a 70 mile per hour wind.
- Prior to commencement of panel erection, detailed lifting and erection plans shall be prepared by, or under the direction of, the responsible engineer. All panel erection shall be performed in accordance with the plan.
- The lifting and erection plans and procedures shall be available on the jobsite.
- Field modifications to the lifting plan shall be approved by the responsible engineer and added to the plans and procedures available at the jobsite.
- Lifting methods and procedures shall be such that employees are not at risk of being struck by the panel or other supporting equipment.

Tilt-up wall panels shall be supported to prevent overturning, toppling and/or collapse until permanent connections are completed as specified in the erection plan.

Vertical Slip Forms

The steel rods or pipes on which jacks climb or by which the forms are lifted must be:

- Specifically designed for that purpose, and
- Adequately braced where not encased in concrete.

Forms must be designed to prevent excessive distortion of the structure during the jacking operation. Jack and vertical supports will be positioned in such a manner that the loads do not exceed the rated capacity of the jacks.

The jacks or other lifting devices must be provided with mechanical dogs or other automatic holding devices to support the slip forms whenever failure of the power supply or lifting mechanisms occurs.

The form structure will be maintained within all design tolerances specified for plumbness during the jacking operation.

The predetermined safe rate of lift must not be exceeded.

All vertical slip forms will be provided with scaffolds or work platforms where employees are required to work or pass.

To date, no vertical slip form work has been performed by Mountain Cascade, but some such work may be performed in the future.

Lift-Slab Operations

Lift-slab operations must be designed and planned by a registered professional engineer who has experience in lift-slab construction. Such plans and designs must be implemented by the employer and must include detailed instructions and sketches indicating the prescribed method of erection. The plans and designs must also include provisions for ensuring lateral stability of the building/structure during construction.

Jacking equipment must be capable of supporting at least two and one half (2-1/2) times the load being lifted during jacking operations and the equipment must not be overloaded. For the purpose of this provision, jacking equipment includes any load bearing component that is used to carry out the lifting operation(s). Such equipment includes, but is not limited to, the following: threaded rods, lifting attachments, lifting nuts, hook-up collars, T-caps, shear heads, columns, and footings. The phrase "reinforced sufficiently to ensure integrity" means that a registered professional engineer, independent of the engineer who designed and planned the lifting operation, has determined from the plans that if there is a loss of support at any jack location, that loss will be confined to that location and the structure as a whole will remain stable.

No employee, except those essential to the jacking operation, will be permitted in the building/structure while any jacking operation is taking place unless the building/structure has been reinforced sufficiently to ensure its integrity during erection.

Under no circumstances will any employee who is not essential to the jacking operation be permitted immediately beneath a slab while it is being lifted.

To date, no lift-slab operation work has been performed by Mountain Cascade, but some such work may be performed in the future.

Masonry Construction

Whenever a masonry wall is being constructed, Mountain Cascade will establish a limited access zone prior to the start of construction. The limited access zone must be as follows:

- Equal to the height of the wall to be constructed plus four (4) feet, and run the entire length of the wall;
- Located on the side of the wall that will be un-scaffold;
- Restricted to entry only by employees actively engaged in constructing the wall;
- Kept in place until the wall is adequately supported to prevent overturning and collapse, unless the height of wall is more than eight (8) feet and unsupported; in which case, it must be braced. The bracing must remain in place until permanent supporting elements of the structure are in place.

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	AREA SQ. INCHES	WEIGHT POUNDS/FT	DIAMETER* INCHES
#3	0.11	0.376	0.375
#4	0.20	0.668	0.500
#5	0.31	1.043	0.625
#6	0.44	1.502	0.750
#7	0.60	2.044	0.875
#8	0.79	2.670	1.000
#9	1.00	3.400	1.128
#10	1.28	43.030	1.270
#11	1.56	5.313	1.410
#14	2.25	7.650	1.693
#18	4.00	13.600	2.257

Current ASTM Specifications cover bar sizes of #14 and #18 in A615 Grade 60 and A705 Only.

*Nominal dimensions.

REINFORCING BAR

NUMBER OF PERSONS REQUIRED TO LIFT

Vs

BAR NUMBER AND LENGTH OF BAR

		BAR LENGTH					
BAR #	QTY	10'	20'	30'	40'	50'	60'
3	5	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]
4	3	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]
5	2	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]
6	2	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]
7	1	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]
8	1	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]
9	1	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]
10	1	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]
11	1	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]
14	1	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]
18	1	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]	[Pattern]

[Pattern]	= 1
[Pattern]	= 2
[Pattern]	= 3
[Pattern]	= 4

CHART IS BASED ON NOISH LIFTING GUIDELINE – 1991

Assumptions:

- Bar is lifted from ground storage to the shoulder
- Hand distance is 8"
- Bar is lifted once every five minutes

EQUIPMENT

EQUIPMENT

A – COMPANY TRUCKS AND AUTOMOBILES

1. You are prohibited from operating any company vehicle unless you are a Mountain Cascade employee and specifically authorized as a driver by your supervisor. Also, you must have a valid and appropriate California driver's license in your possession while operating such vehicle and must obey all California laws relating to the operation of a company vehicle or truck. New employees may be permitted to drive with a valid license from another state, however, they will be required to obtain a California driver's license within a reasonable amount of time.
2. Before operating any truck or automobile, you should check to see that all of the necessary equipment, such as tail lights, head lamps, signals lights, mirrors, windshield wipers, back-up alarms and lights, etc., are in good working order and adjusted properly. Also, check oil, water, fuel levels and tires.
3. Any motor vehicle that is known to be in seriously defective condition must not be operated. All defective items, such as broken or missing parts, excessive wear or faulty condition must be promptly reported to your supervisor and adequately noted on standard repair tags (work orders).
4. The driver shall not move any vehicle until all riders comply with appropriate safety precautions and all loads are well secured. Every employee will wear a seat belt in company vehicles.
5. Employees are not allowed to ride outside of the cab of any truck where there is danger of rolling over or being struck by other vehicles. Workers must not ride on running boards, tailgates, fenders, or loads.
6. Do not back up any vehicle or heavy equipment when the view to the rear is obstructed.
7. The driver should be sure that any towed trailer, air compressor or other construction equipment is securely attached to the towing device. A safety chain must be secured to both the truck and equipment being towed. Also, it must be determined that the brake and signal lights are properly connected when required. Air compressors shall not be towed on the highway by a ½ ton pick-up truck.
8. Never operate a truck or heavy equipment in dangerous areas such as near edges of deep fills, banks or steep slopes, because of the possibility of them overturning.
9. Drivers shall not be allowed in or around a trench while excavating equipment is operating or heavy equipment is backfilling, unless they are in full view of the operator and positioned so that there is no danger of falling into or otherwise contacting the excavator or being struck by the backfill material or equipment.
10. The parking brake as well as the "Micro Brake" must be set and the ignition turned off when a vehicle is parked. Vehicles must not be left unattended until after the motor has been shut off, parking brakes set and gears engaged in park, low or reverse. On hills, always curb the tires of vehicles.
11. Do not work under a vehicle supported by jacks or chain hoists without having adequate protective blocking installed to prevent injury in case of jack or hoist failure.
12. All trucks and pick-ups must be equipped with fire extinguishers. If not, inform your foreman.

B – HEAVY EQUIPMENT

1. Only designated, authorized and qualified individuals shall be permitted to operate or service any heavy equipment.
2. All heavy equipment is equipped with ignition locks, which must be kept locked when left overnight.
3. The operator of any crane, hoist, motor vehicle or other heavy equipment must inspect the equipment and complete any required inspection logs prior to its use on each shift. If inspection reveals defective items which could cause loss of control of the equipment, it must be promptly reported to the supervisor and the equipment shall not be operated until repaired.
4. All defective items such as broken or missing parts, excess wear or faulty conditions, must be adequately noted on standard repair tags.
5. Fire extinguishers are to be kept in a state of full readiness. Trucks with portable fuel tanks, as well as oxygen, acetylene and welding equipment and all three-axle trucks must have appropriate size and type of fire extinguishers installed before it can be operated.

6. Rated load capacity charts, recommended operating speeds, special warning signs and other essential information must be conspicuously posted on all heavy equipment. The equipment must be operated within these limits.
7. Equipment must not be operated near employees who are not in clear view of the operator unless observer is used to warn the operator in case of an emergency.
8. Operators must take signals from only one person, except when in an emergency a stop signal can be given by anyone. The operator must be in constant visual or verbal contact with the signalman while moving a load.
9. Never smoke while servicing a rig.
10. All booms or equipment must be kept at least ten (10) feet away from any high voltage line. Separation distance may be greater depending on the voltage.
11. No one except the oiler or operator is permitted to work within ten (10) feet of any operating trencher boom, conveyer on backhoe bucket. If rocks, roots or dirt need to be removed, the machine must be stopped.
12. Rollover protection structures (“ROPS”), must be maintained on all earth moving and off-highway equipment, such as backhoes, blades, dozers, tractors, etc., regardless of the age of equipment or the terrain. The operator must wear his/her seat belt at all times except while using the backhoe to excavate the actual trench.
13. Employees are not allowed to ride on any equipment unless a seat is provided.
14. When operating equipment look before you back up.
15. Never fuel, oil, or grease equipment while it is running.
16. When working on, or servicing a piece of equipment, make sure all switches are off and “DO NOT START” sign is attached near the ignition switch.
17. Operators on the equipment have limited visibility; help them by not getting in a position where they cannot see you.

C – FLEET SAFETY

C-1 Company Vehicle Policy

Safety is of primary importance at Mountain Cascade, Inc. Each of us must act responsibly to ensure our own safety, the safety of our co-workers, and the public. This objective is fundamental to our wellbeing, as well as to the efficient operations of our business.

Operating a company vehicle safely is a requirement of all drivers. It is a privilege and responsibility – not a right. All drivers are required to operate company vehicles safely and courteously in accordance with all federal, state and local laws and regulations, and our company policies. Violations of laws, regulations and policies may result in the removal of driving privileges that may affect employment status.

The key elements of a safe working environment are management commitment, a knowledgeable supervisory staff, and a conscientious work force, where each individual is dedicated to the principle that accident prevention is an essential part of the planning and efficient execution of each and every job. This is especially important where we have contact with the public, such as when driving a company vehicle.

Every employee has the responsibility to prevent accidents and injuries by observing established working rules, following supervisor’s instructions, practicing the principles taught in safety training, and providing ideas so our safety efforts might be further strengthened. An effective driving safety program extends beyond normal working hours and accordingly employing safe driving habits to protect you and your family are strongly encouraged.

C-2 Responsibilities

Safety Department

The safety department will conduct administrative oversight of the Fleet Safety Program. These responsibilities include:

- Accident investigation
- Obtaining initial motor vehicle report (MVR) on driver
- Periodic MVRs on all drivers

- Maintaining confidentiality of all driving records and incidents

Vehicle Maintenance Department

The vehicle maintenance department is responsible for maintaining company vehicles in proper operating condition. These responsibilities include:

- Reporting all accidents to the safety department
- Inspection documentation
- Regular maintenance and documentation
- Vehicle repair and documentation
- Emergency equipment

Driver

Each driver is responsible for ensuring they follow all federal, state, local, and company requirements. Each vehicle is to be inspected, operated, and maintained per these requirements:

- Knowledge and compliance with vehicle codes
- The safety of the vehicle
- The safety of cargo and passengers
- The safety of pedestrians and other motorists
- Immediately reporting all accidents to the safety department and immediate supervisor

C-3 Vehicle Use Rules

The following are Mountain Cascade, Inc.'s vehicle rules that must be complied with by all drivers. These are in addition to all federal, state, and local laws and regulations. Violations of any of these rules may lead to warning, suspensions or termination of employment.

Operator's License

- Only licensed and authorized employees are permitted to operate company vehicles. The operation or use of company vehicles by others is strictly prohibited.
- Operation of a company vehicle with a suspended license, or restriction allowing use during work hours, is prohibited. Any change of status of a driver's license must be report to the safety department and immediate supervisor.

Conditions of Use

- Unauthorized persons shall not drive in company vehicles. This includes employees not authorized to drive and non-employees. All employees who drive company vehicles will be required to complete the driver selection and training procedures.
- Drinking alcoholic beverage or using drugs prior to or while operating or riding in a company vehicle is strictly prohibited.
- Drivers are subject to a drug/alcohol testing in accordance with Mountain Cascade, Inc. policies.
- Driving while under the influence of drugs or alcohol will be cause for immediate termination. If a driver is on prescribed medication, this information should be reported to their supervisor to determine if driving is acceptable.
- Drivers will immediately report any unsafe conditions or vehicle problems to the vehicle maintenance department. **Vehicles with problems that could affect safe operations shall not be driven until the condition is corrected.**

Accidents, Incidents and Citations

- Immediately notify the safety department and your supervisor if you are involved in any accident or receive a moving violation or any type of vehicle citation. This includes both on and off duty accidents and moving violations.
- All citations are considered to be the responsibility of the driver. All fines will be paid by the driver.
- Accidents are to be reported **immediately** to management. Accident investigation forms are to be completed by the driver at the scene of the accident.
- **Never admit fault at an accident scene. Be cordial, polite and exchange insurance information.**

Inspections

- DOT drivers must complete a daily vehicle safety inspection with due diligence prior to initial operation each shift.

Loads

- All loads (valves and tank trucks, tool boxes, tools, materials, etc.) are to be inspected and secured against shifting or flying out of the vehicle prior to starting by the driver. Use cords, ropes, chains or covers to secure loads.
- Hazardous materials (fuel cans, oxygen/acetylene cylinders, etc.) shall be transported in properly labeled containers. All containers shall be approved for vehicle transportation and shall be free of leaks or defects that may cause a spill or release of the contents.

C-4 Driver Qualifications

The following are minimum qualifications for an employee to drive a Mountain Cascade, Inc. company vehicle:

- To drive a commercial motor vehicle, the Department of Transportation requires the driver to be at least 21 years of age and possess a valid California Driver's License and Commercial Driver's License.
- Drivers must have a current acceptable DMV printout on file with Mountain Cascade, Inc.'s safety department.

C-5 Driver Selection and Hiring

All drivers must complete the driver selection process. In order to ensure that our drivers will be capable of safe vehicle operation, the following selection process will be utilized:

- APPLICATION – All drivers will be required to complete an application for employment. This will include providing references and past employers.
- INTERVIEW – AN interview will be completed for all drivers. Driver related items to be reviewed during the interview include driving experiences and accident history.
- REFERENCE CHECK – Past employers will be contacted, where appropriate to assist with driver evaluations to evaluate for all commercial vehicles. This section is for Class A or B drivers only.
- Driving experience
- Ability to avoid accidents
- Ability to care for vehicle
- Skill level
- Ability to follow traffic regulations
- Ability to meet schedules

Motor Vehicle Reports – Motor Vehicle Reports (MVRs) for each driver will be obtained for the Department of Motor Vehicles as part of the selection process prior to hiring. More than two moving violations or accidents, during any 12 month period may be reason for driver disqualification. Personal vehicle history will be considered as part of the driver's application. All reports will be maintained as confidential as possible.

C-6 Disciplinary Policy

Discipline will be applied in accordance with Mountain Cascade, Inc.'s Disciplinary Policy and may include warnings, suspensions, termination, or loss of company vehicle. Violation of any part of company vehicle policy or fleet safety program may result in disciplinary action.

When it is determined a driver has had a preventable accident, the Fleet Safety Review Board may require the driver to attend and successfully pass a defensive driving course. This course will be completed at the driver's own expense and on their own time.

C-7 Alcohol and Drug Policy

Any employee that drives a company vehicle will be drug tested at hire, randomly, and for probable cause. Refusal to submit to a test will be considered grounds for immediate suspension or termination. All drivers of company vehicles are also subject to the requirements of the company's Alcohol and Drug Use Policy, as outlined in the Drug & Alcohol Policy.

C-8 Vehicle Inspections

- All DOT drivers shall complete Mountain Cascade, Inc.'s vehicle daily inspection and discrepancy form prior to vehicle operation.
- Vehicle discrepancies must be reported to the vehicle maintenance department.
- Should you discover a serious problem or safety issue with the vehicle, the vehicle must not be driven until that problem is corrected. Contact the vehicle maintenance department for specific instructions.
- Company vehicles will be subject to spot checks by supervision.

C-9 Recordkeeping

- Vehicle Mileage Forms – DOT drivers must maintain a vehicle mileage form and turn it in at the end of each month. This tracks miles driven each day and the jobsites visited, as well as gas usage, oil changes, and repairs. Your supervisor will distribute this form.
- DOT Daily Inspection Forms – They are located in the side pocket on the driver side door. These shall be filled out daily.
 - Inspect all items listed on the front sheet. After inspection, initial on the backside under the appropriate month and date.
 - Enter all discrepancies in the middle section of the form indicating the discrepancy, the date found, the time, and signature. The vehicle must be immediately brought to the vehicle maintenance department for any discrepancy that may impair driver or vehicle safety. Questions or concerns about vehicle safety should be referred to the vehicle maintenance department.

C-10 Vehicle Care

- Drivers are responsible for ensuring that all vehicles and equipment are safe, clean and presentable to operate on the road. Therefore, a daily inspection form must be completed prior to initial shift operation.
- Drivers are responsible for ensuring the vehicle is well maintained and in safe operating condition. Only company authorized equipment is allowed on a vehicle. Vehicle modifications are prohibited including, but not limited to:
 - Bumper stickers
 - Tire changing (to unauthorized tires or other equipment)
 - Painting, decals, stencils, or window signs
 - Addition of personal stereo or radio equipment
- Assigned drivers are responsible for scheduling brake jobs, tire rotation, tune-up, and any other repairs through the vehicle maintenance department. Oil changes must be done every 5,000 miles or three (3) months and are to be scheduled through the vehicle maintenance department. Drivers assigned to any location outside of Livermore may have every other oil change completed near their home as approved by the vehicle maintenance department.
- All services or repairs must be pre-authorized by the vehicle maintenance department. The driver is responsible for keeping their vehicle clean and orderly. Please note that vehicle appearance presents an image to the public as does safe driving habits. A clean, safely operated vehicle promotes goodwill and business opportunities.

C-11 Vehicle Emergency Response Equipment

The following equipment must be present in all company vehicles; immediately report missing items to supervisor to obtain replacements.

- Daily inspection form for DOT vehicles
- Current proof of insurance card
- Fire Extinguisher
- First aid kit
- Usable spare tire, jack and lug wrench
- Reflector kit
- Seat belts ready for use
- Accident kit which includes camera, accident report form, information sheet and pen/pencil
- Fleet Safety Program

C-12 Breakdown Procedures

Pull off the road as far as possible and into a safe area. Turn on flashers. If needed, place reflectors to warn other drivers if you can do so safely. **Contact the shop** to report the vehicle condition.

C-13 Accident Procedures

Injury and Non-Injury Accident Procedures – **Should an injury accident occur; your first responsibility is to obtain medical treatment for all injured parties. Contact 911, if possible, or the Dispatcher at (925) 373-8370 and have the dispatcher contact emergency services, if necessary. Stay on the phone or radio until all information is obtained and confirmed.**

- Use vehicle flashers and place reflectors to warn other drivers of the accident if you can do so safely.
- Do not move your vehicle until asked to do so by a police officer or if it presents additional danger to involved parties or other motorist.
- Immediately call the Dispatcher at (925) 373-8370 to report the accident.
- Discuss the accident only with police officer, company personnel, or authorized representative of our insurance company. Do not admit fault.
- Fill out as much of the accident investigation kit as possible including the accident report form. Use the camera to take pictures from all angles. Turn in the camera and forms to the safety department as soon as possible.
- If a police agency responds, write down the officer's name and agency they work for to aid in obtaining a police report.
- If your vehicle can be driven, but you are "shaken up" and do not want to drive, inform the Dispatcher to arrange for transportation.
- All drivers are required to adhere to the company drug and alcohol policies and/or DOT alcohol/drug policies and shall remain available for testing.
- A non-injury accident could be a solo vehicle accident, non-injury between two vehicles, and property damage to a structure. In all cases the same procedures will apply concerning reporting and documentation.
- Failure to report an accident is a serious offense that will not be tolerated.
- Disciplinary action may include written warning, suspension, or termination of employment at the discretion of the Safety Director.

Accident Investigation

- It is required that you immediately notify your supervisor and the safety department of all accidents, no matter how small, and ensure the accident investigation form is completed.
- If you are involved in an accident in a personal automobile while on company business, you must immediately notify your supervisor and obtain the details of the accident as you would with a company vehicle.
- The Safety Director will review the circumstances of the accident to determine if the accident was "preventable or non-preventable".

Results of the investigation will become part of each driver's personnel file. Mountain Cascade, Inc. will report, as appropriate, all accidents where damages greater than \$500 are incurred. The Safety Director will use the following definitions of preventability for vehicular accident to warrant the decision of a preventable or non-preventable accident:

Struck in Rear by Other Vehicle

Non-preventable if:

- Driver's vehicle was legally and properly parked.
- Driver was proceeding in own lane of traffic at a safe and lawful speed.
- Driver was stopped in traffic due to existing conditions or was stopped in compliance with traffic sign, signal, or the direction of a police officer or other person.
- Driver was in proper lane stopped and waiting to make turn.

Struck While Parked

Non-preventable if:

- Driver was properly parked in a location where parking was permitted.
- Vehicle was protected by emergency warning devices as required by federal and state regulations, or if driver was in process of setting out or retrieving reflectors or signals.

Accidents at Intersection

Preventable if:

- Driver failed to control speed so that he could stop within available sight distance.
- Driver failed to check cross-traffic and wait for it to clear before entering intersection.
- Driver pulled out from side-street in the face of oncoming traffic.
- Driver collided with person, vehicle or object while making right or left turn.
- Driver, going straight through an intersection, collided with another vehicle making a turn.

Striking Other Vehicle in Rear

Preventable if:

- Driver failed to maintain safe following distance and have vehicle under control.
- Driver failed to keep alert in traffic conditions and not slow down.
- Driver failed to ascertain whether vehicle ahead was moving slowly, stopped or slowing down for any reason.
- Driver misjudged rate of overtaking.
- Drive came too close before pulling out to pass.
- Driver failed to wait for car ahead to move into the clear before starting up.
- Driver failed to leave sufficient room for passing vehicle to get safely back in line.

Sideswipe and Head-on Collisions

Preventable if:

- Driver was not entirely in the proper lane of travel.
- Driver did not pull to the right and slow down and stop for vehicle encroaching on own lane of travel when such action could have been taken without additional danger.

Struck in Rear by Other Vehicle

Preventable if:

- Driver was passing slower traffic near an intersection and had to make sudden stop.
- Driver made sudden stop to park, load or unload.
- Driver's vehicle was improperly parked.
- Driver rolled back into vehicle behind.

Squeeze Play and Shutouts

Preventable if:

- Drive was passing slower traffic near an intersection and had to make sudden stop.

Backing Accident

Preventable if:

- Driver backed vehicle, causing accident, when such backing up could have been avoided.
- Driver failed to get out of vehicle and check proposed path of backward travel.
- Driver failed to use a "spotter" as required by policy.

Accidents Involving Streetcar or Train

Preventable if:

- Driver attempted to cross tracks directly ahead of train or streetcar or go around warning gate.
- Drive ran into side of train or streetcar.
- Driver stopped on or parked too close to tracks.

Accidents While Passing

Preventable if:

- Driver passed when view of road ahead was obstructed by hill, curve, vegetation, traffic, adverse weather conditions, etc.
- Driver attempted to pass in the face of closely approaching traffic.
- Driver failed to warn the driver of the vehicle passed.
- Driver failed to signal change of lanes.
- Driver pulled out in front of other traffic overtaking from rear.
- Driver cut-in short returning to right lane.

Accident While Being Passed

Preventable if:

- Driver failed to stay in own lane, or hold or reduce speed to permit safe passing.

Accident While Entering Traffic Stream

Preventable if:

- Driver failed to signal when pulling out from curb.
- Driver failed to check traffic before pulling out from curb.

- Driver failed to look back to check traffic if driver was in position where mirrors did not show traffic conditions.
- Driver attempted to pull out in a manner which forces other vehicle(s) to change speed or direction.
- Driver failed to make full stop before entering from side-street, alley or driveway.
- Driver failed to make full stop before crossing sidewalk.
- Driver failed to yield right-of-way to approaching traffic.

Pedestrian Accidents

Preventable if:

- Driver did not reduce speed in area of heavy pedestrian traffic.
- Driver was not prepared to stop.
- Driver failed to yield right-of-way to pedestrian.

Mechanical Defect Accidents

Preventable if:

- Defect was of a type which driver should have detected in make pre-trip or en-route inspection of vehicle.
- Defect was a type which driver should have detected during normal operation of the vehicle.

All Types of Accidents

Preventable if:

- Driver was not operating at a speed consistent with the existing conditions of the road, weather and traffic. Hydro-planning or losing control due to wet conditions or hitting a puddle is considered preventable.
- Driver failed to control speed to be able to stop within assured clear distance.
- Driver misjudged available clearance.
- Driver failed to yield right-of-way to avoid accident.
- Driver failed to accurately observe existing conditions and drive in accordance with those conditions.
- Driver was in violation of company operating rules or special instructions, the regulations of any federal, state or local regulatory agency, or any applicable traffic laws or ordinances.

While evidence of a violation of the law is a clear-cut indication of the preventability of an accident, the absence of any violation does not make the accident non-preventable. The driver can take many steps, which are beyond the requirements of the law to avoid an accident. The board must determine whether the driver could have reasonably taken other actions that would have avoided the accident.

Corrective Action Measure

The board will recommend corrective actions appropriate for the accident reviewed. The board will notify the driver's supervisor of the decision in writing for delivery to the driver. The driver's supervisor will follow up with any recommended corrective action and report back to the board upon completion. All findings and corrective action documentation will be maintained in the driver's personnel file.

C-14 Driving Records

- Driving records are checked at least every 12 months by the safety department to ensure that drivers have an acceptable record to operate a company vehicle.
- Drivers are automatically entered into the California Department of Motor Vehicle "Pull Notice Program" This will ensure that all activity on a driving record is automatically relayed to Mountain Cascade, Inc.
- Drivers must immediately notify the safety department at (925) 373-8370 upon receiving any moving violation or being involved in any accident on or off duty.
- All tickets, fines, citations must be reported to supervision and the safety department. Any moving violation in a personal vehicle will impact the driver's record and must also be reported to the safety department.
- The criteria below are for driver eligibility and for continuance of having the privilege of being able to drive a company vehicle. Violations and "preventable" accidents occurring off work may be included.
 - Any major violation in the last 36 months may result in the loss of driving privileges. Violations examples include but are not limited to the following: driving under the influence of drugs and/or alcohol, reckless driving, excess speed, speed contest, attempting to elude a police officer, leaving the scene of an accident, vehicular homicide or manslaughter, use of a vehicle in the commission of a

felony or vehicle theft, driving while license is suspended/revoked, or any other factors or conditions deemed appropriate by the Safety Director.

- Accidents: no more than one “preventable” accident within the last 12 months and/or one in the last 36 months. This includes “combination” which is a moving violation and an accident.

C-15 Spotter Policy

Mountain Cascade, Inc. policy concerning the backing up of company vehicles is as follows: no person shall backup any large vehicle on an active jobsite without the use of a “spotter”, the spotter will be another person, outside the vehicle and visible to the driver at all times providing hand and voice instructions to the driver in a clear and concise manner, the only exception to this policy is when it is necessary and/or cost effect to send only one (1) driver to a jobsite. In that case, the driver will exit the vehicle and check behind and around the vehicle for any possible unseen obstructions.

C-16 Hazard Material Transportation

Only company authorized hazardous materials may be transported or stored on company vehicles. Hazardous materials shall be transported and stored with the utmost regard for safety.

- Personal vehicles shall not be used to transport hazardous materials.
- All hazardous materials shall be transported or stored in their original container or DOT/DMV/Fire Department approved secondary container (i.e. approved gasoline containers).
- All containers shall have be properly labeled and fully legible at all times.
- Leaking or containers with visible damage that may potentially leak due to their damage shall not be transported or stored on company vehicles.
- Containers shall be properly secured at all times.
- Safety Data Sheets (SDS) shall be maintained on the vehicle for each hazardous material present.
- The following hazardous materials and their quantities allowed on company pickups: Acetylene (cylinders – 4 maximum), Oxygen (cylinders – 4 Maximum), Gasoline (20 gallons maximum), Diesel (100 gallons maximum).

DOT Driver/Ride-Along Safety Observation and Road Test

The true test of good driving is a driver’s daily driving pattern. It could take years before a collision occurs to prove a driver is not as good as previously thought. The ride along safety observation will reveal bad driving habits and seeing habits that should be corrected. Few drivers can consistently score perfect every time. The scoring terms are based on the five keys to space cushion driving.

- A score of 90 is exceptional. Tell the driver to keep up the good work.
- A score of 50 to 75 indicates that there is room for improvement – retain as needed.
- A score below 50 indicates poor driving habits – more focused re-training and counseling is needed. Drivers should be evaluated while on the road. This allows for immediate coaching on how to correct poor driving habits. The ride-along should exceed 30 minutes for proper evaluation.

The following scoring will be used:

- 4 points – Always
- 3 points – Most of the Time
- 2 points – Occasionally
- 1 point - Rarely
- 0 Points – Never

DOT DRIVER/RIDE-ALONG SAFETY OBSERVATION FORM

Driver Name _____ Date _____

Location of Test & Route _____

Driver Evaluator _____

Remarks _____

Areas for Improvement _____

Score _____

Aim high sub-total _____ Get the big picture sub-total _____ Keep
 your eyes moving sub-total _____ Leave yourself a way out sub-total _____
 Make sure they know you are there sub-total _____

Combined Score _____

DOT DRIVER/RIDE ALONG SAFETY OBSERVATION

EVALUATION AREA OR ACTIVITY	1	2	3	4
AIM HIGH				
Keep vehicle centered in the lane				
Sees moving and fixed objects at least a block away in city traffic and 1/2 mile ahead on highway				
Maintains safe following distance				
Avoids swerving when passing other vehicles, turning, or approaching parked vehicles				
Reduces speed to allow for poor conditions or reduced visibility				
Sub-Total				
GET THE BIG PICTURE				
Avoids being boxed in when lanes ahead are blocked				
Avoids severe braking and abrupt turns				
Adjusts speed when approaching intersections on green and yellow lights				
Correctly anticipates moves of other drivers and pedestrians, and avoids conflicts				

Slows down before entering "No Control" intersections, or where there is a possibility of conflict					
Sub-Total					
KEEP YOUR EYES MOVING					
Keeps eyes moving at least every two seconds and checks the rear view mirrors every five to eight seconds					
Checks to the rear before changing lanes, turning or stopping					
Stays clear of erratic drivers					
Checks in all directions and leaves a space cushion before starting up at intersections					
Disposes of eye-holding distractions quickly					
Sub-Total					
LEAVE YOURSELF A WAY OUT					
Recognizes the lane of least resistance and positions the vehicle accordingly					
Allows extra following distance when crowded by a tailgater					
When possible, leaves at least one side open for swerving room, if needed					
Passes only when there is space, visibility and distance to do so					
Quickly re-establishes space around the vehicle when space diminishes					
Sub-Total					
MAKE SURE THEY KNOW YOUR ARE THERE					
Alerts non-attentive drivers and pedestrians this a gentle tap on the horn, or a flick of lights to get eye contact					
Drives with lights on in order to be seen					
Tries to obtain eye contact with people when conditions dictate that it should be done					
Gives early signals for turns, lane changes and checks to see if they are heeded by other drivers					
Doesn't ride in the blind zone of drivers on left, right or rear					
Sub-Total					
GRAND TOTAL					

CONFIRMATION OF RECEIPT OF FLEET SAFETY PROGRAM

This is to confirm that I have received, read and understand the Mountain Cascade, Inc. Fleet Safety Program and agree to abide by those rules and regulations.

I understand that these policies in no way constitute a contract and cannot be construed as such, either in whole or in part. I also, understand that management reserves the right to change, modify, or cancel the

INDUSTRIAL TRUCK OPERATING PROGRAM

INDUSTRIAL TRUCK OPERATING PROGRAM

Introduction

This section outlines the policy and procedures of Mountain Cascade, Inc.'s Industrial Truck Operating Program, as required by California and Federal, where applicable, safety regulations. This program is initiated to bring Mountain Cascade, Inc. into compliance by completing an operators' certification program, assuring that all employees are correctly operating, inspecting and maintaining industrial trucks, implementing a list of required safe operating rules, and providing employees with adequate training to acquaint them with the hazards that they may encounter on the job while operating industrial trucks.

This program applies to all Mountain Cascade, Inc. work operations where Mountain Cascade, Inc. employees and other contractors could be exposed to the hazards of industrial trucks either through their use and/or working in the area of their operations.

Physical Requirements

All name plates and model number, type designation and load capacity markings on industrial trucks must be maintained in a legible condition by Mountain Cascade, Inc. employees.

Only industrial trucks designed, constructed and maintained in accordance with manufacturers' and applicable safety standards are permitted to be used by Mountain Cascade, Inc. employees. If the truck is equipped with front-end attachments other than factory installed attachments, the truck must be marked to identify:

- The Attachments
- The approximate weight of the truck and attachment combination
- The capacity of the truck and attachment combination at maximum elevation of the load engaging means with the load laterally centered

Major modifications and structural changes to high lift trucks, industrial trucks and rider trucks that affect the capacity and safe handling of the vehicle will not be performed by any Mountain Cascade, Inc. employee or other user without prior written approval from the manufacturer, unless the modification is designed, manufactured, and installed in accordance with recognized good engineering and manufacturing principles. The capacity, operation and maintenance instruction plates must be changed on any industrial truck whenever any modification or structural change is made.

No industrial trucks originally approved for the use of gasoline for fuel may be converted to liquefied petroleum gas fuel at Mountain Cascade, Inc.

Steering knobs will not be used unless the truck is equipped with power steering.

Batteries installed in trucks will be secured in suitable racks which are secured to the truck.

Counterweights must be so affixed that they cannot be accidentally dislodged.

Forks, fork extensions and other attachments must be secured so that they cannot be inadvertently dislodged and must be used only in accordance with the manufacturer's recommendations.

Operational Requirements

No powered industrial trucks will be permitted to operate in atmospheres containing more than 20 percent of the lower explosive limit of flammable gas or vapor, or containing combustible dusts or ignitable fibers, unless prior approval is provided by Mountain Cascade, Inc. management. Approved trucks shall bear a permanent legible label or some other identifying mark indicating approval by the testing laboratory.

When industrial trucks operate in areas where general lighting is less than 2 foot-candles per square foot, directional lighting is provided and will be maintained operational on each truck.

Trailers disconnected from their tractor will be secured to prevent them from up-ending during loading or unloading operations.

Industrial trucks will not be operated in areas that expose the operator to the hazard of collision with overhead obstructions unless the truck is equipped with overhead guards. (Refer to Cal/OSHA Section 3655.)

Loads of excessive width, length or height will be so balanced, braced and secured as to prevent tipping and falling.

When cargo is being towed on pipe trucks or similar equipment, all loads will be tied down or otherwise secured from movement to protect the driver from sliding/shifting loads.

Safe Operating Rules

Industrial trucks and tow tractors will be operated in a safe manner in accordance with the following operating rules:

- Only drivers authorized by Mountain Cascade Inc. and trained in the safe operations of industrial trucks or industrial tow tractors pursuant to Section 3668 shall be permitted to operate such vehicles.
- Stunt driving and horseplay are prohibited.
- No riders shall be permitted on vehicles unless provided with adequate riding facilities.
- Employees shall not ride on the forks of lift trucks.
- Employees shall not place any part of their bodies outside the running lines of an industrial truck or between mast uprights or other parts of the truck where shear or crushing hazards exist.
- Employees shall not be allowed to stand, pass or work under the elevated portion of any industrial truck, loaded or empty, unless it is effectively blocked to prevent it from falling.
- Drivers shall check the vehicle at the beginning of each shift, and if it is found to be unsafe, the matter shall be reported immediately to a foreman or mechanic, and the vehicle shall not be put in service again until it has been made safe. Attention shall be given to proper functioning of tires, horn, lights, battery, controller, brakes, steering mechanism, cooling system, and the lift system for fork lifts (forks, chains, cable and limit switches).
- No truck shall be operated with a leak in the fuel system.
- Vehicles shall not exceed the authorized or safe speed, always maintaining a safe distance from other vehicles, keeping the truck under positive control at all times and all established traffic regulations shall be observed. For trucks traveling in the same direction, a safe distance may be considered to be approximately 3 truck lengths or preferably a time lapse of 3 seconds passing the same point.
- Trucks traveling in the same direction shall not be passed at intersections, blind spots or dangerous locations.
- The driver shall slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing.
- Operators shall look in the direction of travel and shall not move a vehicle until certain that all persons are in the clear.
- Trucks shall not be driven up to anyone standing in front of a bench or other fixed object of such that the person could be caught between the truck and object.
- Grades shall be ascended or descended slowly.
 - When ascending or descending grades in excess of 10 percent, loaded trucks shall be driven with the load upgrade.
 - On all grades the load and load engaging means shall be tilted back if applicable and raised only as far as necessary to clear the road surface.
 - Motorized hand and hand/rider trucks shall be operated on all grades with the load engaging means downgrade.
- The forks shall always be carried as low as possible, consistent with safe operations.
- When leaving a vehicle unattended (the operator is over 25 feet, 7.6 meters, from or out of sight of the industrial truck) the brakes are set, the mast is brought in the vertical position, and forks are left in the down position, either:
 - The power shall be shut off and when left on an incline the wheels shall be blocked; or
 - The power may remain on provided the wheels are blocked, front and rear.
- When the operator of an industrial truck is dismounted and within 25 feet, 7.6 meters, of the truck which remains in the operator's view the load engaging means shall be fully lowered, controls placed in neutral and the brakes set to prevent movement.
 - Exceptions: fork on fork-equipped industrial trucks may be in the raise position for loading and unloading if the forks are raised no more than 42 inches above the level where the operator/loaders are standing and the power is shut off, controls placed in neutral and the brakes set. If on an incline, the wheels shall be blocked.

- Vehicles shall not be run onto any elevator unless the driver is specifically authorized to do so. Before entering an elevator, the driver shall determine that the capacity of the elevator will not be exceeded. Once on an elevator the industrial truck's power shall be shut off and the brakes set.
- Motorized hand trucks shall enter elevators or other confined areas with the load end forward.
- Vehicles shall not be operated on floors, sidewalk doors, or platforms that will not safely support the loaded vehicle.
- Prior to driving onto trucks, trailers and railroad cars, their flooring shall be checked for breaks and other structural weaknesses.
- Vehicles shall not be driven in and out of highway trucks and trailers at loading docks until such trucks or trailers are securely blocked or restrained and the brakes set.
- To prevent railroad cars from moving during loading or unloading operations, the car brakes shall be set, wheel chocks or other recognized positive stops used, and blue flags or lights displayed in accordance with applicable regulations promulgated by the Public Utilities Commission.
- The width of one tire on the powered industrial truck shall be the minimum distance maintained from the edge by the truck while it is on any elevated dock, platform, freight car or truck.
- Railroad tracks shall be crossed diagonally, whenever possible. Parking closer than 8 ½ feet from the centerline of railroad tracks is prohibited.
- Trucks shall not be loaded in excess of their rated capacity.
- A loaded vehicle shall not be moved until the load is safe and secure.
- Extreme care shall be taken when tilting loads. Tilting forward with the load engaging means elevated shall be prohibited except when picking up a load. Elevated loads shall not be tilted forward except when the load is being deposited onto a storage rack or equivalent. When stacking or tiering backward tilt shall be limited to that necessary to stabilize the load.
- The load engaging device shall be placed in such a manner that the load will be securely held or supported.
- Special precautions shall be taken in the securing and handling of loads by trucks equipped with attachments, and during the operation of these trucks after the loads have been removed.
- When powered industrial trucks are used to open and close doors, the following provisions shall be complied with:
 - A device specifically designed for opening or closing doors shall be attached to the truck.
 - The force applied by the device to the door shall be applied parallel to the direction of travel of the door.
 - The entire door opening shall be in full view of the operator.
 - The Truck operator and other employees shall be clear of the area where the door might fall while being opened.
- If loads are lifted by two or more trucks working in unison, the total weight of the load shall not exceed the combined rated lifting capacity of all trucks involved.

General Operations

Mountain Cascade, Inc. has posted and will enforce a set of operating rules for industrial truck operations. Every employee who operates an industrial truck will receive instruction in the safe operating procedures and other applicable safe practices dictated by the work environment. Such information is provided at the time of initial assignment and at least annually thereafter. Copies of these instructions, printed in a language understood by the majority of the employees, are conspicuously posted at a place frequented by Mountain Cascade, Inc. industrial truck operators. Mountain Cascade, Inc.'s safe operating rules for industrial trucks are posted in the following locations:

- On the bulletin board in the shop.
- In the jobsite trailer and/or jobsite shed, if present
- Kept in each Foreman's and Superintendent's vehicle at each jobsite.

Employee Operating Instructions

- Securely fasten your seat belt if the tractors have a ROPS.
- Where possible, avoid operating the tractor near ditches, embankments and holes.
- Reduce speed when turning, crossing slopes and on rough, slick or muddy surfaces.
- Stay off slopes too steep for safe operations.
- Watch where you are going, especially at row ends, on roads, and around trees.
- Do not permit others to ride.
- Operate the tractor smoothly – no jerky turns, starts or stops.
- Hitch only to the drawbar and hitch points recommended by tractor manufacturers.

- When tractor is stopped, set brakes securely and use park lock if available.
- Stunt driving or horseplay while operating an industrial truck is strictly prohibited.

Conditions and Repairs

Every employee who operates an industrial truck is required to check the truck prior to operation each day. If the industrial truck is unsafe, the employee is required to report the matter immediately to a foreman, superintendent or the shop manager and will not use the industrial truck again until it has been returned to a safe operating condition.

No repairs are permitted to be performed on any industrial truck until arrangements have been made to reduce the probability of injury to the Mountain Cascade, Inc. mechanic and any others in the area caused by sudden movement or operation of such equipment or its parts.

Operator Training

Mountain Cascade, Inc. will ensure that each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of training and a hands-on evaluation. Prior to permitting an employee to operate a powered industrial truck (except for training purposes) Mountain Cascade, Inc. shall ensure that each operator has successfully completed the training and certification program required by this section.

Training Program Implementation

Trainees may operate a powered industrial truck only:

- Under the direct supervision of persons who have the knowledge, training and experience to train operators and evaluate their competence.
- Where such operation does not endanger the trainee or other employees.
- Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, DVD, written material, etc.) practical training (demonstrations performed by the trainer and practical exercises performed by the trainee) and evaluation of the operator's performance in the workplace.
- All operator training and evaluation shall be conducted by persons who have the knowledge, training and experience to train powered industrial truck operators and evaluate their competence.

Training Program Content

Powered industrial truck operators will receive initial training in the following topics, except in those topics which Mountain Cascade, Inc. can demonstrate are not applicable to the safe operation of the truck in Mountain Cascade, Inc.'s workplace

Truck Related Topics:

- Operating instructions, warnings and precautions for the types of truck the operator will be authorized to operate.
- Differences between the trucks and the automobile
- Truck controls and instrumentation: where they are located, what they do, and how they work
- Engine or motor operations
- Steering and maneuvering
- Visibility (including restrictions due to loading)
- Fork and attachment adaptation, operation and use limitations
- Vehicle capacity
- Vehicle stability, including tip over hazards at the jobsite
- Any vehicle inspection and maintenance that the operator will be required to perform
- Refueling and/or changing and recharging of batteries
- Operating limitations

Other than the above, there are no additional truck related operating instructions, warnings or precautions listed in the operator's manual for the types of vehicles that the employee is being trained to operator.

Workplace Related Topics:

- Surface conditions where the vehicle will be operated, including under water obstacles and muddy conditions at the jobsite
- Composition of loads to be carried and load stability
- Load manipulation, stacking and un-stacking
- Pedestrian traffic in areas where the vehicle will be operated
- Narrow aisles and other restricted places where the vehicle will be operated
- Hazardous (classified) locations where the vehicle will be operated
- Ramps and other sloped surfaces that could affect the vehicle's stability
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a built up of carbon monoxide or diesel exhaust
- Overhead electrical wires – proper distance to maintain from contacting or inducing arcing from these electrical hazards

Other than the above, there are no additional foreseen work related unique or potentially hazardous conditions in the workplace or on Mountain Cascade, Inc. jobsites that could affect safe operation.

Refresher Training and Evaluation

Refresher training, including an evaluation of the effectiveness of that training is conducted to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely.

Refresher train in relevant topics will be provided to the operator when:

- The operator has been observed to operate the vehicle in an unsafe manner
- The operator has been involved in an accident or near miss incident
- The operator has received an evaluation that reveals that the operator is not operating the industrial truck safely
- The operator is assigned to drive a different type of industrial truck
- A condition in the workplace changes in a manner that could affect the safe operation of the industrial truck

An evaluation of each powered industrial truck operator's performance will be conducted at least once every three years.

Avoidance of Duplicative Training

If an operator has previously received training in a topic specified in the Truck Related Topics and Workplace Related Topics subsections above, and such training is appropriate to the truck and working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate the truck safely.

Certification and Dates

Mountain Cascade, Inc. will certify that each operator has been trained and evaluated, as required by Cal/OSHA Regulations. The certification shall include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation.

Mountain Cascade, Inc. will ensure that all employee operators of powered industrial trucks are trained. The initial training and evaluation of each employee will be completed before the employee is assigned to operate a powered industrial truck.

CRANES AND RIGGING

The intent of Crane & Rigging Safety Procedures is to insure all crane operations are performed in a safe manner. All crane work must be pre-planned to ensure the safety of the process.

It is the responsibility of the contractor and/or crane equipment supplier to assure any crane used on a Mountain Cascade, Inc. project is in safe working condition. The crane must comply with all applicable State and Federal OSHA standards. Documentation must be supplied with the crane and reviewed by the project superintendent prior to any work being performed by the crane on the job.

Documentation Required for Safe Crane Operation is as Follows:

- The crane must be inspected and maintained in accordance with the manufacture's specifications.
- The crane must comply with all State, Federal or any special Mountain Cascade, Inc. or owner project requirements,
- The crane operator manual must be available in the crane cab.
- The crane must have a current thorough annual inspection performed by a person qualified to inspect and certify cranes.
- Inspection logs for daily, weekly and monthly work (as per manufacturer's specifications) are to be located in the crane cab or project office for inspection. See owner/operation manual(s) for crane specific inspection criteria.
- The crane operator has a crane operator's card (or other like training verification) verifying the operator's qualifications to operate this specific type of crane.
- Special permission (in the form of a lift plan) is required, for any lift that exceeds 75 percent of the rated capacity of the crane, (this may not be applicable for mobile cranes equipped with operating computer systems or tower cranes with operating limit switches.)
- At no time will a crane be operated with computer systems or limit switched in a non-functioning or override condition.
- The weight of the load must be known.
- All outriggers must be fully extended and set on stable ground and/or adequate solid cribbing before any lift.
- A qualified rigger shall perform all rigging activities and conduct rigging inspections prior to each use.
Damaged equipment must be taken immediately "Out of Service" and tagged accordingly,
- Any multiple crane pick requires a written plan and pre-approval from the project superintendent.
- Communication protocol must be established anytime crane, lines, loads or booms may collide.
- A qualified signal person must be used whenever:
 - The load is not in full view of the operator.
 - When the operators view is obstructed while traveling.
 - Whenever the operator or the person handling the load determines that a signal person is necessary.
Use of designed bellman should be considered in project planning.
- Tag lines must be used to maintain control of loads. Taglines must be made of non-conductive materials.

Due to the seriousness of crane safety procedures any operator or supervisor who violates these procedures will be subject to immediate disciplinary actions up to and including termination or debarment from all Mountain Cascade, Inc. projects whichever is appropriate.

MINIMUM SAFE APPROACH DISTANCE (MSAD) TO POWER LINES

No part of a crane, the cranes load line, or load (including rigging and lifting accessories) shall operate **any closer than 20 feet** to a power line (up to 350KV) unless the following provisions are strictly adhered to:

Step 1: Before beginning any crane, operations identify the work zone – This can be done by either:

- Demarcating boundaries (such as with flags, signs, barricades) and prohibit the operator from operating the crane past those boundaries, or
- Defining the work zone as the area 360 degrees around the equipment, up to the equipment's maximum working radius.

Step 2: Determine if any part of the crane, the cranes load line, or load (including rigging and lifting accessories) could, or need to, operate any closer than 20 feet to a power line (up to 350KV). If so, go to step 3.

Step 3: Options

- **Option 1:** is to have the utility owner/operator de-energize and ground the power line(s). Confirm that the power line has been de-energized and is visibly grounded at the worksite. If this is not possible, follow option 2.
- **Option 2:** is to maintain the required minimum approach distance specified by OSHA Table A below.
 - **Step 1:** Contact the utility owner/operator to verify the power line voltage.
 - **Step 2:** Once you have verified the lines voltage ensure that no part of the crane, the cranes load line, or load (include rigging and lifting accessories) operate any closer to the power line as specified in Table A. This is accomplished by erecting a warning line, barricade, or line of signs in the view of the operator. This warning line system must have a high visibility flags or markings set no closer to the power line than the minimum approach distance under Table A.
 - If the operator can't see the warning line you must use a dedicated spotter who is in continuous contact with the operator. The spotter must use a clearly visible visual aid to identify the minimum clearance distance, be positioned to gauge the distance accurately, and ensure the operator maintains the distance. Examples of visual aids are lines painted on the ground, stanchions, and line of sight landmarks.

OSHA TABLE A
Minimum Approach Distances to Power Lines

Voltage (nominal, kV, alternating, or direct current)
up to 50KV = 10 feet
over 50 to 200 KV = 15 feet
over 200 to 350 KV = 20 feet
over 350 to 500 KV = 35 feet
over 750 to 1,000 KV = 45 feet
over 1,000 KV = as established by the utility owner

MULTIPLE CRANES ON PROJECTS

Whenever two or more cranes are in use on a project the following procedures must be followed:

- Crane use meetings should be held daily, before work starts. Attendees: operators, bellman and/or dedicated signalmen, foremen of crews using cranes and Mountain Cascade, Inc. project superintendent.
- A written pre-plan must be submitted as part of the Project Safety Plan.
- Radio communication between operators.
- Quadrants of operations clearly defined.

TOWER CRANES

Tower crane selection and sizing must be pre-planned as a function of the Mountain Cascade, Inc. Preliminary Project Safety Plan. The Mountain Cascade, Inc. equipment and/or safety department should be directly involved in this planning meeting. Consideration must be given to local conditions and potential permits required.

A specific tower crane erection, jumping, or dismantling safety meeting must be held at the jobsite prior to these work processes.

The following checklist should be used as a guide for issues that must be addressed at this meeting.

Tower Crane Erection, Jumping, Dismantling Checklist

- All tower cranes must be erected, jumped, dismantled and operated in accordance with the manufacturer's specifications and procedures. (Operating manual must be provided on site).
- The tower crane lessor must provide the erector and Mountain Cascade, Inc. with a list of verified weights of all major component parts.
- The tower crane lessor must provide the erector and Mountain Cascade, Inc. with written procedures for erecting, jumping (when appropriate) and dismantling each major component. This will include proper torque specifications and procedures.
- The tower crane lessor must assure that all components of the crane arrive at the jobsite in a safe working condition.
- The tower crane lessor, erection contractor, mobile crane operator and/or representative and a Mountain Cascade, Inc. superintendent must make a physical inspection of the erection site to assure adequate setup area and proper radius and load chart capacities.
- The erector must provide a load chart for the crane to be used in the erection process.
- The erector must provide a fall protection work plane for the erection, jumping or dismantling process.
- The tower crane erector's representative must be on the job site to monitor the erection process.
- Soils and footings for both the tower and mobile crane must be verified as adequate for the erection process.
- The tower crane erector's representative must inspect, test and certify in writing that the tower crane is in safe working condition prior to any work being performed.



555 Exchange Court
Livermore, CA 94550

Project Name:
Job Number:
Job Address:
Job Phone/Fax:

MINIMUM SAFE CRANE OPERATING PROCEDURES

1. Daily Inspection of Crane. (refer to checklist and/or manufacturer specifications)
2. Site evaluation – Power Lines, Ground Conditions, Weather Conditions
3. Determine Load Weight
 - Load Weight =
 - Block =
 - Rigging =
 - Total Weight =
4. Determine the radius
5. Refer to load chart
6. Position the crane – Minimum Radius, Maximum Boom Angle, Set Outriggers
7. Check for adequate rigging – Center of Gravity, Sling Capacity
8. Review signals/pre-lifting meeting
9. Hard hats are mandatory in the crane area – lifting loads over personnel shall be avoided
10. High visibility clothing should be worn by ALL personnel working around cranes or heavy equipment

NOTE: If you have any questions, Contact your supervisor.

**TOOLS AND
MISCELLANEOUS SAFETY
PROCEDURES**

POWER TOOLS AND EQUIPMENT

Working on construction project individuals may be required to operate and work around power tools and equipment. These tools and equipment must be operated in a safe manner. Initially, each tool or piece of mechanical equipment comes with manual or safe operating instructions. Many times, these manuals are maintained in the office or tool lock-up area.

When personnel are assigned to operate a power, tool make sure they are familiar with its safe operation. They may be familiar with safe operating procedures from past experience. However, some equipment will be new or unfamiliar. Personnel should not be allowed to operate equipment until they have read and understood the operator's manual and a foreman has explained how to use the equipment safely.

- Make sure all required guards are on the equipment before operating the tool.
- Make sure all hand operated power tools have been marked as safe under the electrical equipment testing program, or are operating under the protection of a GFI circuit.
- Make sure the tool has a trigger release that will not lock the tool into a continuous operation mode.
- Powder Actuated tools, forklifts, cranes and aerial lift units require a special operator card. Make sure the individual has the appropriate certification card before operating this type of equipment.
- It is the responsibility of the company supplying the tool or equipment to assure it is in safe working condition when it arrives on the project and before it is sent out to the work area.
- Any tool or equipment that is found not to be in a safe working condition must immediately be tagged "out of service". The tool or equipment should be returned to the tool supply area or removed from the project. This includes power tools and equipment as well as rigging gear, ladders, scaffolds, lift units, and personal protective equipment.
- Maintenance on equipment should only be performed by authorized personnel.
- Tools and equipment must be disconnected whenever the equipment is involved in maintenance, even to change a blade on a saw. If this is not possible then lock-out/tag-out procedures must be put into effect.
- To prevent a hazard, any equipment that requires service that would put an individual in jeopardy of being pinched or crushed must be blocked up.
- A hand-line with a proper safety clasp should be used to hoist and lower tools, never use the cord or hose.
- Extension cords and hoses must not create a tripping hazard or otherwise obstruct the access and movement of workers or the public. Whenever possible, arrange your cords and hoses so that they will not be damaged by equipment, materials or vehicular traffic.
- All portable electrical tools must be grounded except for those labeled "UL Approved – Double Insulated TOO".
- No minor under the age of 16 shall be employed or permitted to work in any capacity with any tools prohibited in Section 1293, 1984-1296 of the Labor Code.

Note: For Mountain Cascade personnel all power tools and equipment must be rented or purchased through the Mountain Cascade Equipment Yard.

If you have any questions ask your supervisor immediately!

A – HAND HELD TOOLS

B – POWDER ACTUATED TOOLS

- Powder activated tools are to be used by trained, licensed personnel only and are to be checked over and tested to determine if safety devices are working properly before each day's use.
- Make sure no tools are left loaded after use or while the tools are unattended.
- Warning signs are required to be posted when powder activated tools are in use.

C – AIR EQUIPMENT

- Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming disconnected accidentally.
- Safety clips or retainers shall be installed securely and maintained on pneumatic impact tools to prevent attachments from being expelled accidentally.
- All hoses exceeding ½ inch inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.
- All coupled hose must be secured with chain or safety-wire in both sets of holes.
- Any bleed air hoses must be turned off at the compressor before disconnecting at the tool hose connection or compressor.
- It is strictly prohibited to direct compressed air towards a person.
- Suitable locking devices should be used at couplings of high-pressure hose lines where a connection failure would create a hazard.

D – ELECTRICAL

- All generators must be grounded.
- Circuits must be properly fused.
- Extension cords and connectors shall be inspected frequently and kept in good condition with insulation and protective coating intact. Cords shall not be dragged over sharp surfaces and shall have GFCI.
- Operating personnel shall be properly trained in the use, capacity and safety features for the equipment that he/she is assigned to use.
- Electrical switch boxes shall be located in an easily accessible area with care given to possible hazards, such as water, unauthorized personnel and moving vehicles. A locking device shall be permanently attached to the switch box and locked at the end of each workday.
- Inspect all boxes for defects or damage prior to each use.
- Treat all electrical wires as if they are energized.
- All temporary overhead power lines must have a fifteen (15) feet minimum ground clearance.
- All ground level wiring should not lay in a traveled way unless covered or properly protected.

E – HOUSEKEEPING

- Scrap lumber and debris must be kept reasonable cleared from work surfaces, passageways and stairs.
- Storage areas and walkways must be maintained free of dangerous depressions, obstructions and debris.
- Piles or stacked material must be place in stable stacks to prevent it from falling, slipping or collapsing.
- Keep all exit doorways clear at all times.

F – PERSONAL PROTECTION

- Eye protection (or a face shield) is required where there is an inherent risk of eye injury from flying particles, injurious chemicals or harmful light rays.
- Foot protection is required for workers who are exposed to injury from hot, corrosive or injurious substances, from falling objects, crushing or penetrating actions, or who work in wet locations.

G – FLAMMABLE/COMBUSTIBLE LIQUIDS

- All containers must be plainly marked with a warning label. Flammable liquids must not be used:
 - To wash floors, structures or equipment except with adequate ventilation.
 - To spray clean, unless used in a spray booth or outdoors with no ignition source within twenty-five (25) feet.
- Only approved containers and tanks can be used for storage and handling of flammable and combustible liquids.
- All spills of flammable or combustible liquids must be cleaned up immediately.
- All employees shall be trained in the safe handling practices of hazardous chemicals such as acids, caustics and the like.

H – STEEL TRENCH PLATE SAFETY

- Steel trench plates have limits like any other equipment or tool used in the work place. The recommended steel to use for trench plates should be a 36-mill certified structural steel or better and accompanied by a tabulated data, signed and approved by a registered engineer. Calculations on steel plates and tabulated data may vary from agencies or companies.
- Hands and fingers should not be placed on or around the steel plate and should not be pushed or guided by employee's hands while loading, unloading or placing the steel plates. The proper way of guiding the steel plate in place is with a device that has a magnet attached to a metal rod and used like a tag line. The steel plate should be straight and true with very little deformity and should be shimmed so the plate will not rock or injure anyone. Place a cold patch around the edges can eliminate tripping hazards, protects tires from bursting and also aid in keeping the plate in position. When setting, be assured it is level/stable by use of wedges or similar when necessary.

PERSONAL PROTECTIVE EQUIPMENT

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personal Protective Equipment (PPE) is exactly what the term implies. It is equipment designed and intended to provide for individual personnel's protection at the workplace.

It is the responsibility of each individual sub-contractor/employer to evaluate the work site and from this analysis provide the appropriate personal protective equipment for their personnel.

PPE includes items such as: Respirators, Safety Belts and Harnesses, Eye Protection, Gloves, Hard Hats and Hearing Protection.

It is also the responsibility of each individual contractor to train their personnel in the safe use of this equipment.

Sub-contractors and their personnel must come to a Mountain Cascade, Inc. project with the required PPE for their work process. Mountain Cascade, Inc. will not supply or loan PPE to sub-contractors or their personnel. It is the individual's responsibility to inspect and maintain the PPE in a safe condition.

If any personnel have a question about the adequacy of their level of PPE while working on our project they may contact their safety group leader or the project superintendent.

Mountain Cascade, Inc. personnel will have PPE explained, issued to them and trained in its proper use at project orientation or when needed for protection for individual tasks.

Personnel who do not have the adequate PPE will be in violation of the safety program and will not be allowed to continue their work until adequate PPE is provided and they are trained in its use.

Once you have been issued PPE it is the individual's responsibility to see that it is maintained in good safe condition. Inspect it daily.

Mountain Cascade, Inc. will schedule and coordinate meetings to inform sub-contractors of special PPE requirements. Questions regarding specific projects where there may be interaction among various sub-contractors because of chemicals they are using will be answered at those meetings.

Some items may be furnished for a specific use or project only. This equipment will be signed out to individuals who will be responsible for its care and return before leaving the project. If it is not returned, the individual will be held liable for the cost of the item; this cost will be deducted from their last paycheck. Under certain conditions, personnel could face disciplinary actions that would prohibit them from working in the future on a Mountain Cascade project.

EYE PROTECTION

All personnel shall wear eye protection appropriate for the tasks being performed. This type of eye protection required should be determined during the pre-job and pre-task planning.

At the discretion of the Mountain Cascade project superintendent, a project may enforce 100% eye protection; this can be at two different levels. The highest level of protection is 100% ANSI Z-87 approved eye protection. This is where all eye protection must meet ANSI Z-87 standards. The other option of 100% eye protection includes side-shields on the glasses however the side-shields do not meet ANSI standards.

FALL PROTECTION

Mountain Cascade, Inc. has very stringent fall protection requirements. Reference the fall protection chapter in the Mountain Cascade Safety Manual for specific fall protection requirements. With very few exceptions, fall protection must be used when there is a fall exposure of six (6) feet or more. When the type of fall protection is PPE, only full-body harnesses will be allowed for fall arrests. Body-belts may be used only for fall restraint.

HEARING PROTECTION

Mountain Cascade, Inc. has a mandatory hearing protection policy for our personnel. When ambient or local noise levels exceed 85 dba hearing protection is required to be used. Normally this is in the form of earplugs or muffs, which will be available on the project. Your foreman will show you how to use them properly. Always use clean earplugs. In addition to offering earplugs, other types of protection will be offered (e.g. muffs or head band plugs) as alternatives. Personnel are encouraged to use earplugs as they offer the highest level of protection. After the noise level in the work environment has been established, the type of hearing protection required to be used should be determined by using the noise reduction rating, listed on the hearing protection device, to lower exposure to 85 dba. PPE should be used only after practicable engineering controls, to reduce the noise levels, have been evaluated/implemented.

RESPIRATORS

Under normal work conditions Mountain Cascade personnel should not need a respirator. The site work plan should first attempt to remove the need for respirators by eliminating the hazard. For special work process such as grinding, demolition and sweeping, dust mask will be appropriate. These will be available on the project. The Mountain Cascade Chemical Management & Chemical Use System may identify areas where more specialized respirators will be needed. Reference the Respirator Protection Program in the Mountain Cascade Safety Manual and/or the SDS when/where respirators may be required. Medical exam and personal fitting is required when the task requires the use of a respirator.

HARD HATS

Hard hats that are ANSI approved are mandatory for all personnel on a Mountain Cascade project. At the discretion of the Mountain Cascade project superintendent, certain areas of the project may be exempt from this policy. This exemption is only allowed when personnel working in this area have no exposure to falling objects (i.e. installing flooring). When personnel are allowed not to wear their hard hats the area must be well identified. Travel paths to/from may or may not have this exemption.

GLOVES

Gloves should be worn when work process involves handling of metal or sharp objects. They are mandatory in demolition work. For special work process that may involve use of chemicals the SDS should be referenced for type of gloves required.

FOOT WEAR

Work shoes are required on all Mountain Cascade projects. A work boot is defined as having a minimum of six (6) inch high leather ankle support, which is measured from heel of the boot. Soles shall be of slip resistant/no-skid and provide good traction upon the surface's personnel would be expected to work (rubber soled or treated boot sole). The use of athletic shoes is not allowed. At the discretion of the Mountain Cascade superintendent, some specialty contractors (i.e. flooring, internal painting) may make area/time specific arrangements to allow personnel flexibility with the leather six-inch ankle support requirement. Access to/from the work area must be considered.

Rubber boots should be worn for concrete work. Special insoles may be provided to prevent puncture wounds. It is recommended that personnel purchase high quality work shoes. Consider use of shoes with cushioned insoles that add support and comfort while working.

HIGH VISIBILITY

High visibility outer garments maybe required when exposure to large equipment such s cranes, trucks, earth mining equipment and vehicular traffic. This type of garment will be identified by the Mountain Cascade project superintendent. High visibility garments are required when working on or near public streets.

Some personal protective equipment will be issued to you at your orientation. It will be provided to you in a safe and clean condition. It is your responsibility to inspect and maintain the equipment in a safe condition.

**FALL PROTECTION & FALL
PREVENTION PROGRAM**

FALL PROTECTION & FALL PREVENTION PROGRAM

OVERALL PRACTICE

The foreman has the duty to provide fall protection for all Mountain Cascade workers potentially exposed to a fall situation at his/her jobsite.

Safety harnesses are the only acceptable means of personal fall arrest systems permitted on the Mountain Cascade premises. The use of safety body belts is not acceptable for fall protection.

The practice of an unprotected LEADING EDGE is not recognized at Mountain Cascade. If there is an unprotected leading edge, fall protection or fall prevention is required.

FALL PROTECTION/FALL ARREST/FALL RESTRAINT

All workers at Mountain Cascade are required to be protected from the hazard of falls whenever work is being completed at heights of six feet (6') or greater measured from the lowest adjacent area to the bottom of the sole of the foot. The seven and one-half foot fall rule, at minimum, applies to the following conditions:

- Walking and working surfaces
- Unprotected sides and edges
- Leading edges
- Hoist areas
- Holes, shaft ways and floor openings
- Formwork and reinforcing steel
- Ramps, runways, and other walkways
- Excavations
- Sloped roof surfaces steeper than 7:12 or 40 degrees
- Aerial equipment

PERSONAL FALL ARREST SYSTEMS

Personal fall arrest systems are designed to control the fall of a worker and minimize the injury once a worker has fallen. Fall arrest systems consist of the following components:

- Full body harness (body wear)
- Shock absorbing lanyard or retractable reel (connecting device)
- Tie off point (anchorage)

SPECIFIC REQUIREMENTS

Lanyards and vertical lifelines must have a minimum breaking strength of 5,000 pounds. Lifelines will be secured above the point of operation to an anchorage or structural member capable of supporting a minimum dead weight of 5,000 pounds.

- Lifelines must be protected from cuts and abrasions.
- Retractable reel (self-retracting) lanyards are preferred, and must have a minimum breaking strength of 5,000 pounds (3,000 pounds if they limit the free fall distance to 2 feet or less).
- Mountain Cascade will provide safety harnesses to its workers when fall protection is required.
- All shock-absorbing lanyards must be equipped with locking snap hooks.
- If a lanyard is used, it must be a shock-absorbing lanyard for fall protection.
- Lanyards will be a minimum of ½ inch nylon, or equivalent, with a maximum length to full fall arrest no greater than 6 feet.
- Lanyards will have a nominal breaking strength of at least 5,000 pounds.

- Lanyards will be removed from service when evidence of wear is detected or if the lanyard has had a load applied.
- The anchorage (tie off point) must be capable of withstanding a minimum 5,000-pound tensile strength per worker tied off.
- Anchorage (tie off) must generally be above the worker's head.
- Anchorage must be high enough such that the worker cannot free fall more than four feet, nor strike any lower level, should a fall occur.
- The attached point of the safety harness must be located in the center of the worker's back near shoulder level, or above the wearer's head.
- Personal fall arrest systems must be inspected prior to each use for wear, damage, and other deterioration and defective components must be removed from service.
- Each personal fall arrest system shall be inspected not less than twice annually by a competent person in accordance with manufacturer's recommendations and the date of each inspection must be documented.
- Any safety harness, lifeline or lanyard actually subjected to in-service loading will be immediately removed from service and will not be used again for worker safeguarding.
- All safety harnesses, lifelines and lanyards will meet or exceed ANSI A10.14 standards.

TRAINING

The foreman and/or certified vendor (as a competent person) must provide, at a minimum, the fall protection training. Documentation of this training will be maintained at the Mountain Cascade main office. Training must include, at a minimum:

- The nature of the fall hazard in the work area.
- The correct procedure for erecting, maintaining, disassembling, and inspecting the fall protection system(s) to be used.
- The use and operations of guardrail systems, personal fall arrest systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used.
- The role of each worker in the safety monitoring system when this system is used.
- The correct procedures for the handling and storage of equipment and materials, and the erection of overhead protection.
- The role of workers in the fall protection plans.

SAFETY HARNESES, LANYARDS AND LIFELINES RESPONSIBILITIES

The Mountain Cascade Safety Director is responsible for providing and requiring the use of safety harnesses, lifelines and lanyards when Mountain Cascade workers are exposed to a fall of 6 feet or greater. For contractors/vendors on the Mountain Cascade premises or subcontractors on Mountain Cascade's jobsites, the contractor/vendor/subcontractor is responsible for providing and requiring the use of safety harnesses, lifelines, and lanyards when its workers are exposed to a fall of 6 feet or greater. A safety harness is the only acceptable personal fall arrest system permitted by Mountain Cascade. The use of body belts is not acceptable for fall protection.

FALL RESCUE OF EMPLOYEES

Specific plans for the rescue of workers have been developed for Mountain Cascade specific work and must be rehearsed prior to initiating work requiring the use of fall protection safety harnesses. For contractors/subcontractors, their rescue plan and the basic work plan will be submitted to the Mountain Cascade Safety Director for review and comment. Concerns expressed by the foreman or any other reviewing authority, will be addressed fully prior to exposing any worker to an elevated work area.

MANUFACTURED LADDERS

Manufactured ladders on the Mountain Cascade premises will comply with the regulations of ANSI-A14-1982, Safety Code of Portable Wood Ladders or ANSI-A14.2-1982, Safety Code of Portable Metal Ladders, as required by Cal-OSHA. All ladders will be used in the manner and for the purposes for which they are designed and constructed.

- Ladders will be inspected daily before use and those with broken or missing rungs, broken or split side rails, or otherwise damaged, will not be used.
- All portable ladders will be equipped with non-skid safety feet and will be placed on a stable base. The access area at the top and bottom of ladders in use will be kept clear.
- The side rails will extend 36 inches above the landing. When this is not practical, grab rails will be installed. All ladders in use will be tied, blocked or otherwise secured to prevent accidental displacement.
- Portable metal ladders will not be used where they may become electrically energized.

SCAFFOLDING

Scaffolds will be designed, built and inspected by competent persons. To avoid the use of makeshift platforms, each task will be carefully planned to assure that scaffolding is used where required and that such scaffolding conforms to the applicable Cal-OSHA regulations, including being equipped with guardrails, midrails, toe boards and access ladders.

ROOF, FLOOR AND WALL OPENINGS – UNPROTECTED AND OPEN SIDES

To control conditions where there is a danger of workers or materials falling through floor, roof or wall openings such openings will be protected and marked with a warning sign “OPENING – DO NOT REMOVE”. All perimeter protection, and floor, roof and wall opening protection will be maintained at all times. Any violation must be rectified immediately. Violations may result in termination for cause.

STANDARD RAILINGS

Design of Temporary Railing

A standard railing will consist of a top rail, intermediate (mid) rail, toe board and posts:

- The top rail will be at a height between 42 inches and 45 inches from the upper surface of the rail to the floor, platform or ramp level. The top rail will have a smooth surface throughout its length and be made of at least 2 inches by 4-inch stock, 3/8-inch double clamped wire rope or its equivalent. It will be secured to withstand a load of 13 pounds per linear foot applied either horizontally or vertically downward with minimum deflection.
- The mid-rail will be halfway between the top rail and the floor, runway, platform or ramp. The ends of the rail will not overhand the terminal posts except when it does not constitute a projection hazard. The mid-rail will be made of at least 1 inch by 6-inch stock or its equivalent.
- The toe board will have a nominal 4-inch minimum height and will be securely fastened in place with no more than 1/4 inch clearance above the floor level.
- Wooden railing posts (verticals) will be made of at least 2 inches by 4-inch stock or its equivalent, and be spaced so as not to exceed 8 feet on center.

Other Railings

Other types, sizes and arrangements of railing construction are acceptable provided they meet the following requirements:

- A smooth surface top rail at a height of 42 inches to 45 inches above the floor.
- Strength to withstand the minimum of 200 pounds top rail pressure with a maximum deflection of three (3) inches in any direction.

For specific material requirements, refer to Cal-OSHA regulations.

STAIR RAILINGS

The construction of stair railings will be similar to that of standard railing. The vertical height, however, will not be more than 34 inches or less than 30 inches from the top rail to the surface of the tread, in line with the face of the riser, at the forward edge of the riser. All handrails will be provided with a clearance of at least 3 inches between the handrail and any other surface or object.

COVERED FLOORING OPENING

Floor opening covers will be capable of supporting the greater of 400 pounds or twice the weight of employees, equipment and materials that may be placed on any one square foot area of a cover. Covers must be installed so as to prevent accidental displacement and removal. Covers will be distinctively marked and anchored. For purposes of coverings, a floor opening is defined as any opening up to 16 square feet. All others must be protected with top and intermediate rails and toe boards.

SCISSOR LIFTS AND AERIAL LIFTS

Only authorized employees shall be permitted to operate scissor lifts and aerial lifts. Authorization will consist of both written and hands-on instruction by a competent person or manufacturer/vendor representative with documentation of training. Training will include the use of fall protection systems and anchorage points.

All scissor lifts and aerial lifts must be equipped with a top rail, mid rail and toe board around the entire platform/basket deck. The top rail must be 42 to 45 inches in height, the mid rail half way between the top rail and platform/basket deck, and the toe board at least 3 ½ inches high.

- At no time will employees be permitted to sit, climb or stand on any part of the guardrails on the platform/basket deck, including mid-rails and toe boards to gain greater working height or reach.
- At no time will employees be permitted to use planks, ladders or other devices on the platform/basket deck to gain working height or reach.

The fall protection system required to be used by each and any employee on an aerial lift will be as follows:

- Full body safety harness must be worn.
- A positioning device, fall restraint or decelerating lanyard will be used.
- Tie off will be approved anchor points on the platform/basket. Tying off to the guardrail is not an approved anchor point.

Note: At no time will employees be permitted to tie off to an adjacent pole, structure or equipment while working from a scissor lift or aerial lift.

FALL PROTECTION WORK PLAN



555 Exchange Court
Livermore, CA 94550

Project Name:
Job Number:
Job Address:
Job Phone/Fax:

FALL PROTECTION WORK PLAN

Contractor: _____ Date: _____

Specific Work Area: _____

Specific Work Procedure: _____

Potential Areas of Fall Exposure

Fall Protection Methods

Fall Protection Equipment and/or Systems to be Implemented on this Project

Special Conditions to Notify Personnel of

Method to Preclude Overhead Hazards to Workers

EMERGENCY ACTION PLAN

OFFICE, SHOP AND YARD EMERGENCY ACTION PLAN

OVERVIEW OF OPERATIONS AND REPSONSIBILITIES

Mountain Cascade, Inc. will operate and maintain its locations in a way that reduces the possibility of accidents. To achieve this goal, every employee shall become familiar with the proper use, storage and handling of flammable, combustible and hazardous materials and shall follow appropriate work practices.

In the event of an incident, employees will follow the procedures outlined in this plan.

Training of Employees

Employees will receive training on Mountain Cascade, Inc.'s emergency action plan as part of the new hire orientation session/meeting. This will include specific training for those key persons responsible for evacuating employees. Completion of this training is documented on the employee orientation checklist. Whenever the plan is revised or updated, all affected employees will receive refresher training. This refresher training is also documented.

Emergency Coordinator

The Emergency Coordinator is responsible for coordinating all emergency response actions at the specific location. He/she is familiar with the operations of the business and has full access to all areas at the location. In addition, he/she has the authority to make decisions during an emergency and will be available on a 24-hour basis. The Alternate Coordinator will work in conjunction with the Emergency Coordinator or on his/her behalf.

- Emergency Coordinator: Shop Manager
- Alternate Coordinator: Vice President Public Works

Telephone Directory

Fire, Police, Medical or Hazardous Materials Emergency

- Emergency Coordinator: Rickey Arslanian (925) 525-5420 – 24-hour Phone Number
- Alternate Coordinator: Roger Williamson (925) 525-2794 – 24-hour Phone Number
- Valley Care Medical Center Hospital (925) 447-7000
1111 E Stanley Blvd, Livermore, CA
- Asbury Environmental Services Hazardous Waste (888) 603-8844 – 24-hour Phone Number
9302 Garfield Ave, Southgate, CA Hauler/Emergency Clean Up

PRE-EMERGENCY CONTACTS WITH EMERGENCY SERVICES

The Shop Manager or his designee is responsible for inviting the firefighters at the nearest Fire Station to visit his location as often as needed to become familiar with its operations and flammable, combustible and hazardous materials.

The Shop Manager or his designee is responsible for notifying the nearest hospital as often as needed of any special medicine, equipment or decontamination procedures that will be required to treat injuries and illnesses caused by the hazardous materials used at his/her location.

Spilled hazardous materials and dirty absorbents should be considered hazardous waste. Hazardous waste cannot be thrown out with regular trash. It must be removed by a licensed hazardous waste contractor. The shop Manager or his designee will contact the hazardous waste contractor listed above in this plan to remove hazardous waste produced as a result of a fire or other type of incident.

Method of Alerting Employees and Other People With-in the Location

When there is an emergency, employees and other people within the location will be alerted through the use of Nextel, phone or intercom by the Emergency Coordinator. The Emergency Coordinator or his designee will then call the Fire

and Police departments to notify them of the emergency. The Emergency Coordinator or his designee will call the Safety Director.

Method of Alerting Neighbors

In the event of a fire or other type of incident, contact immediate neighbors who may be affected. When a fire or other type of incident may affect these neighbors, employees will alert neighbors by telephone or verbally by walking into their offices. It will be the responsibility of the Emergency Coordinator to direct other personnel to perform this duty.

Procedures for Shutting Off Gas, Electricity and Water

Gas will be shut off in the event of a major earthquake where structural damage is present and/or when gas odor is present or if there is a fire. The gas valve is located in front of the building. (Turn gas valve knob in opposite direction at the flow in pipe with a crescent wrench.) Electricity will be shut off in the event of a gas leak. (Electricity is shut off by hand at breaker panel.) Water will be shut off in the event of a water leak. The water valve is located in the grass area in front of the building. Utilities will only be turned on after inspection by the Fire Department and/or other local governmental agencies having jurisdiction at the incident site.

General Evacuation Procedures

To facilitate the immediate evacuation of the location, the Emergency Coordinator or his designate assistant will use voice communication, cell phone or intercom for calling for the immediate evacuation of all persons from the location. The Emergency Coordinator will be responsible for assisting employees, guests and others in exiting the location. Evacuation routes are illustrated on evacuation maps. All employees and others will assemble on the street in front of 555 Exchange Court. This area has been designated as the meeting place for all employees and others in an emergency. All Supervisors/Managers will account for their employees and any others present at the time of the emergency. Any Supervisor/Manager with unaccounted for employees will report to the Emergency Coordinator so he will be able to coordinate any needed rescue efforts.

NO EMPLOYEE WILL REMAIN IN ANY OF THE BUILDINGS OR ON THE PREMISES FOR ANY PURPOSE.

Procedures for Rescues and Other Medical Duties

It is Mountain Cascade, Inc.'s practice that the Office Manager and selected supervisory personnel be trained in CPR and First Aid. During an emergency, if a medical rescue is needed, the employee who discovers the person or persons in need of rescue will summon a Supervisor/Manager to first call 911 and alert the Emergency Coordinator of the need for a medical rescue. The Emergency Coordinator or his designee will perform CPR or render First Aid. When exposure to hazardous materials has been determined, employees will consult Safety Data Sheets (SDS) for recommended steps for dealing with such exposure.

Written Plan Access

A copy of the Emergency Action Plan is maintained at each Mountain Cascade, Inc. location. The plan is posted in the main office and in the shop and is accessible at all times to employees.

FIRE AND EXPLOSION PRE-PLANNING

Alarm System

The system to alert personnel in the event of a fire and explosion is verbal communication, cell phone or intercom system.

Designated Personnel

The designated person to notify the local fire department in the event of a fire and explosion is the emergency coordinator or alternate coordinator. Personnel who have been trained in procedures to control spectators, direct traffic and handle the media while the fire is being contained by the fire department consist of:

- Crowd Control - Appointed Person
- Traffic Control - Appointed Person
- Media Liaison - Vice President of Estimating
- Injury Assessment - Shop Manager

Evacuation Postings

Evacuation procedures, including diagrams, are posted in the main office and the shop.

Evacuation Procedures, Notification and Response

Employees will be notified of a fire and explosion by either direct connect, phone or intercom system. The local fire department will be notified by the emergency coordinator or alternate coordinator by dialing 911. Clear instructions on the premise's location will be given to the fire department personnel. The duty of guiding the fire department personnel to the fire and explosion location is the responsibility of traffic control and injury assessment.

All employees will assemble at the predetermined gathering location, which is on the street in front of 555 Exchange Court. AN accurate count of employees will then be performed. Each supervisor/manager will account for his/her employees and injury assessment will verify that all guests have evacuated the location by completing a sweep of the public areas.

The emergency coordinator will contact medical personnel by dialing 911. Clear assessment of injuries and location of the injured will be made. The duty of guiding the medical response personnel to the injured will be coordinated by traffic control and injury assessment.

EARTHQUAKE

Procedures During an Earthquake

- Office Areas – Stay/move away from windows and other glass. Duck and cover under desks or stand in doorways.
- Shop, Storage and Other Areas – Stay/Move away from pipes, storage shelves and machinery/equipment. Duck and cover under tables where present or stand in doorways.

Procedures Following an Earthquake

Once the earthquake ends, evacuate the facility as normal for a fire drill. The same procedures will be followed for notifying the local fire department, assembling and accounting for employees and others at the location and contacting medical personnel (as necessary). In addition, the following must be addressed:

- Who is working alone? Injury assessment will check all areas for persons who have not/cannot get out of the location. Especially check bathrooms, storage rooms, etc. Emergency coordinator or alternate coordinator will check for water, natural gas, and other potential leaks by walking the perimeter of the location.
- Gas will be shut off in the event of a major earthquake where structural damage is present and/or when gas odor is present or if there is a fire. The gas valve is located out front of the building (turn gas valve knob in opposite direction at the flow in pipe with a crescent wrench). Electricity will be shut off in the event of a gas leak (electricity is shut off by hand at breaker panel). Water will be shut off in the event of a water leak. The water valve is located in the grass in front of the building. Utilities will only be turned on after inspection by the Fire Department and or other local governmental agencies having jurisdiction at the incident site.

BOMB THREAT

Bomb threats are made by pranksters, political terrorists, criminal extortionists, disgruntled employees or an employee looking for a few hours off work. The threat can arrive over the telephone, in the mail, by written message left in a public place, scrawled on the wall or in person. In any case, **ALL THREATS MUST BE TAKEN SERIOUSLY!**

Procedures for Bomb Threats

If a threat is received:

- o Write down the exact time of the call
- o Record the caller’s exact words. Permit the caller to say as much as possible without interruption
- o Ask the Caller the following questions and record their response of the form to follow:
 - > When will it explode?
 - > Where is it located?
 - > What does it look like?
 - > Why was it placed?
 - > Who is calling?
- o Make notifications as appropriate to safety director, office manager, police, etc., and implement the same evacuation procedures as for fire and explosion above.

Procedures for Suspect Object

If you find an object you suspect may be a bomb, evacuate all personnel off the premises and out of line of sight or blast effect and dial 911. Then take the following actions **ONLY IF IT IS SAFE TO DO SO**:

- o Identify/Evaluate the object
- o Do not attempt to touch, move, dismantle or pour water on any suspicious objects/devices
- o If safe, open doors and windows around the area to reduce blast effect (if applicable)
- o Isolate (secure) the area from entry (if applicable)
- o Restrict access to the area

Procedures Following a Bomb Explosion

If a bomb explodes and persons are injured, remove the victims immediately without treating them where they were found and secure the area. This rational is based on the practice of some terrorists who place additional bombs in the same area designed to explode at a later time to injure rescue workers. The shop manager or office manage is to call 911 using a neighboring business’ telephone or cell phone.

BOMB THREAT CALLER INFORMATION SHEET

Exact Wording of Threat:

Sex of Caller: _____ Race: _____ Age: _____

Length of Call: _____ Phone # at Which Received: _____

Time: _____ Date: _____

Caller's Voice:

___ Calm ___ Angry ___ Nasal ___ Stutter ___ Excited ___ Lisp ___ Slow

___ Disguised ___ Soft ___ Loud ___ Deep ___ Distinct ___ Rasping ___ Ragged

___ Familiar ___ Slurred ___ Normal ___ Deep Breathing

Any Background Noises?

Remarks:

Name: _____

Position: _____

Phone Number: _____

FIRE PREVENTION PLAN

Management Statement of Policy

This Fire Prevention Plan has been established for Mountain Cascade, Inc. to be in compliance with the Cal/OSHA Regulations. It is aimed at protecting life and property and minimizing losses. All employees and any contractors, vendors and repair personnel are expected to comply with the plan.

Standards set by the National Fire Prevention Association (NTPA) will be followed where applicable. Whenever there is a discrepancy with policies/regulations, the more stringent is in effect.

Mountain Cascade, Inc. has provided for the installation and maintenance of fire protection systems and requires expedient abatement of any identified fire hazard.

Overall Responsibilities

It is the responsibility of the safety director to implement this Fire Prevention Plan for the company.

Each employee shall comply with the fire prevention procedures set forth in this plan. There shall be no unauthorized open fires.

The office manager at the main office, shop manager at the shop and the foreman and superintendent at each jobsite is expected to be in full compliance with Mountain Cascade, Inc's Fire Prevention Plan. This implies a direct involvement with all personnel at his/her location.

Pre-Planning

A pre-planning meeting has been held with fire department officials to discuss the hazards and access routes for fire department apparatus the main office and shop and at any jobsite as deemed necessary. Annual meetings are completed with the fire department liaison(s) to review and discuss any changes to the main office's or shop's operations or premises conditions.

Portable Fire Extinguishers

Portable fire extinguishers rated not less than 2A are provided for each 3,000 square feet of each building at the main office and shop locations. Travel distance from any point to the nearest extinguisher does not exceed 75 feet. At least one portable fire extinguisher is located adjacent to the landing of each stairway, in each building where stairs are present. In addition, each foreman, superintendent and area manager has a fire extinguisher in his/her construction vehicle.

Mountain Cascade, Inc. provides fire extinguishers that are a minimum five-pound multi-purpose dry chemical with a 1A:10BC rating.

In addition, portable fire extinguishers for fire prevention are provided for the following specific conditions at each applicable location of jobsite:

- At least one portable multi-purpose dry chemical fire extinguisher with a minimum rating of 2A:20BC is located outside of, but not more than ten feet from, the door opening of each room used for the storage of more than sixty gallons of flammable liquids.
- A portable multi-purpose dry chemical fire extinguisher with a minimum rating of 2A:20BC is located within twenty-five feet from any flammable liquid storage area located outside.
- Storage locations for propane cylinders are provided with a least one portable multi-purpose dry chemical fire extinguisher with a minimum rating of 2A:20BC.
- Areas temporarily heated with heaters, fueled by propane, natural gas, oil or solid fuel are provided with a least one portable multi-purpose dry chemical fire extinguisher with a minimum rating of 2A:20BC.
- A portable multi-purpose dry chemical fire extinguisher with a minimum rating of 2A:20BC is to be provided within twenty-five feet of welding, cutting and heating operations and wherever more than five gallons of flammable or combustible liquids and five pounds or flammable gases are being used.

Fire extinguishers belonging to Mountain Cascade, Inc are visually inspected monthly by the office manager at their main office, the shop manager at the shop and each foreman, superintendent, and area manager in possession of one or more extinguishers. Verification of each fire extinguisher's monthly inspection will consist of initialing and dating the backside of the extinguisher's tag. The visual inspection of a fire extinguisher consists of checking the following items, at a minimum:

- Certification tag is attached to extinguisher and punched out date on the tag is less than one year old
- Gauge on extinguisher reads "Full"

- Pin in handle is in place
- Snap tie is in place, holding pin in handle.
- Extinguisher condition reveals no rusting, dents or other visible defect

In addition, all Mountain Cascade, Inc. extinguishers are serviced annually by the contracted service company.

Fire Fighting Access

The main office and shop buildings are accessible to fire department apparatus via access roads with all-weather driving surfaces of no less than 20 feet of unobstructed width. Access roads are capable of withstanding the live loads of fire apparatus and have a minimum of 13'6" of vertical clearance. The required width of access roadways shall not be obstructed in any manner, including parking of vehicles. "No Parking" signs or other appropriate notices, prohibiting obstruction have been posted in these areas, and shall be maintained.

Standpipes/Risers

At the main office and shop buildings where standpipes are in place, they are maintained in such a manner that they are always ready for use. The standpipes are provided with conspicuously marked Siamese connections on the outside of the building at street level, with at least one standard hose outlet at each floor. The installations are reportedly in compliance with NFPA 14, "Standard for Installation of Standpipes".

Sprinkler Protection and Maintenance

At the main office and shop buildings where, automatic sprinkler protection is provided, it is provided in all areas. The sprinkler systems are reportedly in compliance with NFPA 13 "Standard for Installation of Sprinkler Systems". If sprinkler protection is being turned off and on to effect repairs or additions, the control valve will be checked at the end of each work period to determine that the protection is in service.

Inspection

Each main office and shop building are inspected by a qualified person, the office manager and shop manager respectively, for fire hazards and to determine the condition of fire protection equipment. To be effective, inspections are followed up with written documentation on the monthly shop and quarterly office safety inspection report forms by the safety director to insure prompt completion. Items covered during the inspection are identified within the next section entitled "Identification and Control of Hazards".

IDENTIFICATION AND CONTROL OF HAZARDS

Flammable and Combustible Liquids

The storage and use of flammable liquids are an ever-present hazard. Equipment fuels, heating fuels and solvents are among those liquids which require definite control and safeguarding. These controls shall include proper location of storage, approved temporary storage and dispensing of containers, separation from other hazards and adequate ventilation.

Storage and Handling Requirements

- All fire exposures (propane heaters and storage of propane, grease, oil and other flammable liquids) are located away from stored equipment and other materials.
- All flammable liquids are stored in approved containers and kept away from open flame.
- Fuels are stored and handled in accordance with NFPA 30, which includes secondary containment.
- Smoking is prohibited around fuel storage areas (i.e., propane cylinders).
- Storage areas are kept clean of debris and free of grease and oil.
- An adequate number of portable fire extinguishers (dry chemical type with minimum rating of 2A:20BC) are conveniently and conspicuously located in all storage and service areas. Employees working in these areas are trained in the operation of such extinguishers and how to effectively use them on a fire.
- Containers are marked as per the Hazard Communication Program.

Temporary Heating

Temporary heaters fueled by propane are occasionally used in the shop. They provide heated space for employees.

Temporary heaters are used usually in vented, self-contained and self-supporting (with internal reservoirs) units and are designed to be transported from one location to another.

General Information

The following general requirements are common to all types of temporary heaters:

- Only “listed” or “approved” units are used at each location. This means equipment which has been listed or approved by nationally recognized testing laboratory, such as Factory Mutual Engineering Corp or Underwriters’ Coast Guard, which issue approvals for such equipment. All units are installed, used, monitored and maintained according to the manufacturer’s instructions by properly trained personnel. Temporary heaters are used for their intended application only.
- Employees shall follow the operating procedures per manufacturer’s recommendation in order to assure proper placement and servicing, safe clearance from combustible materials, close surveillance and maintenance, safe fuel storage and re-fueling, and prompt detection of leaks.
- Each heater has permanently affixed to it a data plate providing the following information: required clearance, ventilation, fuel type and input pressure, and lighting and extinguishing instructions.
- Temporary heaters, when in use, are set horizontally level for good stability unless otherwise permitted by the manufacturer’s markings.

Common Hazards/Exposures

- Oxygen Deficiency/Asphyxiation/Poisoning – Temporary heaters of the gas and liquid-fuel types are constantly drawing oxygen from the working area’s atmosphere and produce varying amounts of carbon monoxide, carbon dioxide and water vapor as part of the combustion process. This could lead to a hazardous oxygen condition. If any deficiency occurs, fresh air is provided and any other corrective measures taken to alleviate the hazardous situation.
- Confined Spaces – Fuel-fired heaters shall not be used in confined spaces.
- Contact Burns – Contact burns are hazards even with the newest gas and liquid-fueled temporary heaters. Temperatures are high on the heater’s case and may cause skin burns and ignition of clothing.
- Incorrect Fuel – Use of incorrect fuel may result in the production of excessive amounts of toxic gases, flare-ups or explosions. The correct fuel will be used as designed for each individual unit.

Fire Protection and Prevention

General fire protection requirements are in accordance with OSHA General Industry Standards. Additional special for requirements for temporary heaters are also highlighted within this plan. Effective means of fire extinguishment is provided where any type of temporary heaters is used.

Fuel Storage and Handling of Containers

Fuel storage and handling are potential hazards. Storage of flammable and combustible liquids is in accordance with NFPA 30, Flammable and Combustible Liquids Code, and any additional local laws.

A Closed container in storage will be sealed by means of a lid or other device so the neither liquid nor vapor can escape at ordinary temperatures. Any closed container having a liquid capacity of more than 60 U.S. gallons and not intended for a fixed installation is considered a portable tank. Handling procedures indicate that re-fueling must be performed out of doors or in a well-ventilated area.

Open Flames and smoking are not permitted in any storage area and posted “No Smoking” signs are maintained accordingly. Storage areas are kept clean and free of any debris or combustible materials that do not belong in the storage area. Good housekeeping is a must.

Combustible Materials

A wide range of combustible items are found at the Mountain Cascade, Inc. main office, shop and jobsite locations. These include forms, cardboard, wood, plastics and solvents. Such items are stored in locations away from other hazards and separated from each other whenever possible. They are brought into the main office, shop and jobsite locations as needed and stored in areas away from work activities. Good housekeeping is required to be followed at the main office, shop and at all jobsite locations.

Equipment Maintenance

Proper maintenance of equipment is completed, particularly on propane fueled heaters and equipment. Equipment maintenance checks are made on fuel tanks and exhaust systems. Equipment is regularly inspected and maintained by qualified personnel, with complete records maintained. Particular attention is given to fuel hookup methods. Propane heaters are kept outside of each closed location at all times.

Smoking

Smoking is prohibited in the vicinity of hazardous operations or locations. "No Smoking" signs are conspicuously placed and will be maintained in hazardous areas and no-smoking rules will be strictly enforced. Specified smoking areas have been provided and suitable ash receptacles furnished.

Training and Education

The safety of employees and the public and maximum benefit from using fire protection equipment can best be obtained when employees are trained in proper use of equipment and proper safeguards of hazards. Training is the responsibility of the office manager at the main office, the shop manager at the shop and each foreman and superintendent at each jobsite location.

Training was completed at the initial implementation of this plan, and subsequently for all new employees during the new employee orientation sessions conducted and at the start of each new job at the jobsite. Completion of this training is documented on the Employee Orientation Checklist. Periodic re-training is completed with the key personnel identified in the Emergency Action Plan, for employees handling and storing hazardous equipment and materials, and whenever the plan is revised or updated. This refresher training is also documented.

Written Plan Access

A copy of the Fire Prevention Plan is maintained at the Mountain Cascade, Inc. main office and shop as well as at each jobsite location. The plan is accessible at all times to employees and is posted at the following locations.

- Main Office - On the bookshelf in the lunchroom
- Shop/Yard - On the wall in the Shop Manager's office
- Jobsite - Kept in the Foreman's and Superintendents vehicles

Investigation of Fires

All fires are promptly investigated. Photographs are taken, where possible, to fully illustrate the occurrence.

The Mountain Cascade, Inc. Safety Director must be notified immediately of any fires involving property damage or bodily injury.

JOBSITE EMERGENCY ACTION PLAN §3220

OVERVIEW OF OPERATIONS AND RESPONSIBILITIES

Mtn. Cascade, Inc. (MCI) will operate and maintain its jobsites locations in a way that reduces the possibility of accidents. To achieve this goal, every employee shall become familiar with the proper use, storage, and handling of flammable, combustible, and hazardous materials and shall follow appropriate work practices.

In the event of an incident, all MCI Field Employees will follow the procedures outlined in this Plan.

Training of Employees 3220 (e)(1), (2), & (3)

All Field Employees will receive training on MCI's Jobsite Emergency Action Plan as part of the new hire orientation session or jobsite start-up meeting. This will include specific training for those key persons responsible for evacuating employees. Completion of this training is documented on the Employee Orientation Checklist or Jobsite Start-up Orientation Meeting document. Whenever the Plan is revised or updated, all affected employees will receive refresher training. This refresher training is also documented.

Emergency Coordinator 3220 (b)(6)

The Emergency Coordinator is responsible for coordinating all emergency response actions at the specific jobsite location. He/she is familiar with the operations of the jobsite and has full access to all areas at the location. In addition, he/she has the authority to make decisions during an emergency and will be available on a 24-hour basis. The Alternate Coordinator will work in conjunction with the Emergency Coordinator on his/her behalf.

Location:	Jobsite
Emergency Coordinator:	<i>Superintendent or Foreman</i>
Alternate Coordinator:	<i>Foreman or Lead Person</i>

Telephone Directory 3220 (b)(6) WILL BE FILLED OUT SPECIFIC TO PROJECT

Fire, Police, Medical, or Hazardous Materials Emergency	911
Emergency Coordinator Superintendent – _____ – Foreman – _____ –	(Cell) (Cell)
Alternate Coordinator Foreman – _____ – Lead Person – _____ –	(Cell) (Cell)
Hospital <u>As designated in the Jobsite Field Binder</u>	(24-Hour Phone)
Clinic <u>As designated in the Jobsite Field Binder</u>	(Phone)
Hazardous Waste Hauler/Emergency Clean-up Contractor Name: _____ Address: _____	(24-Hour Phone)

Pre-Emergency Contacts with Emergency Services

Spilled hazardous materials and dirty absorbents are considered hazardous waste. Hazardous waste cannot be thrown out with regular trash. It must be removed by a licensed hazardous waste contractor. The Superintendent or Foreman or his designee will call the *Safety Director* to notify him of a spill, leak or other incident that results in hazardous materials that need to be cleaned up. The *Safety Director*, in turn, will contact the hazardous waste contractor listed above in this Plan to remove hazardous waste produced as a result of a fire or other type of incident.

Method of Alerting Employees and MCI Subcontractors at the Jobsite Location

3220 (c)(1) & (2)

When there is an emergency, MCI employees and its Subcontractors' employees at the jobsite location will be alerted thru the use of *a boat horn or mobile phones*.

General Evacuation Procedures 3220 (b)(1), (2), & (3)

To facilitate the immediate evacuation of the MCI jobsite work areas, the Superintendent, Foreman, or his designee will *sound the boat horn* or verbally notify employees calling for the immediate evacuation of all persons from the work areas. All employees and MCI Subcontractors' employees will assemble at the location designated by the Superintendent or Foreman at the start of the job. This area has been designated as the meeting place for all MCI employees and its subcontractors in an emergency. The Superintendent, Foreman or his designee will account for his employees and MCI's subcontractors will account for their employees present at the time of the emergency. If any employees are unaccounted for, the Superintendent, Foreman or his designee will coordinate any needed rescue efforts.

Job Name and Number: _____

Assembly Location at the Jobsite: _____

Procedures for Rescues and Other Medical Duties 3220 (b)(4)

It is MCI's practice that all Superintendents and Foremen be trained in CPR and First-Aid. During an emergency, if a medical rescue is needed, the employee who discovers the person or persons in need of rescue will summon their Superintendent or Foreman to first call 911 and alert their Superintendent or Foreman of the need for a medical rescue. The Superintendent, Foreman or his designee will perform CPR or render First Aid at his discretion. When exposure to hazardous materials had been determined, employees will consult Safety Data Sheets (SDSs) or Safety Data Sheets (SDSs) for recommended steps for dealing with such exposure. SDSs are located in each Superintendent's and Foreman's vehicle.

Written Plan Access 3220 (e)(3)

A copy of the Emergency Action Plan is maintained in the Superintendent's and Foreman's vehicles, and is accessible at all times by employees.

Fire or Explosion 3220 (d)

Pre-Planning

Alarm system - The system to alert MCI employees and its Subcontractors' employees at the jobsite in the event of a fire or explosion is to *sound the boat horn or mobile phone*.

Designated personnel - The designated person to notify the local fire department in the event of a fire or explosion is the Emergency Coordinator or Alternate Coordinator. MCI personnel at the jobsite who have been trained in procedures to control spectators, direct traffic, and handle the media while the fire is being contained by the fire department consist of:

Crowd Control: *Foreman or Lead Person*
Traffic Control: *Lead Person*
Media Liaison: *President/Duke Fuller*
Injury Assessment: *Superintendent or Foreman*

Evacuation Procedures, Notification and Response 3220 (b)(5)

MCI Employees and its Subcontractors' employees will be notified of a fire or explosion by *sounding the boat horn or mobile phone*.

The local fire department will be notified by the Emergency Coordinator or Alternate Coordinator, or the General Contractor, by dialing 911 or the local emergency telephone number. Clear instructions on the jobsite location will be given to the fire department personnel. The duty of guiding the fire department personnel to the fire and explosion location is the responsibility of Traffic Control and Injury Assessment, or the General Contractor's personnel.

All MCI employees and its Subcontractors' employees will assemble at the predetermined gathering location, designated by the Superintendent or Foreman at the start of the job. An accurate count of employees will then be performed.

The Superintendent, Foreman or his designee will contact medical personnel by dialing 911 or the local emergency telephone number. Clear assessment of injuries and location of the injured will be made. The duty of guiding the medical response personnel to the injured will be coordinated by Traffic Control and Injury Assessment, or the General Contractor's personnel.

Earthquake 3220 (d)

Procedures During an Earthquake

Work Areas ___ Stay or move away from pipes, stored materials, and machinery and equipment.

Procedures Following an Earthquake 3220 (b)(5)

Once the earthquake ends, evacuate the jobsite as is normal for a fire drill. The same procedures will be followed for notifying the local fire department, assembling and accounting for MCI employees and its Subcontractors' employees at the jobsite, and contacting medical personnel (as necessary).

In addition, the following must be addressed:

- Who is working alone? Injury Assessment will check all areas for persons who have not gotten out of or cannot get out of the jobsite.

FIRST-AID & MEDICAL EMERGENCIES §1512

Provision of Services & Appropriately Trained Persons 1512(a) & (b)

Per Cal-OSHA regulations, each employer shall ensure the availability of medical services and a suitable number of appropriately trained persons to render first aid, at each of the construction sites they have employees working at. Prior to the start of each job, Mtn. Cascade, Inc. (MCI) will provide the Jobsite Superintendent and Foreman with a Jobsite Start-up Packet which contains the name, address and phone number of the nearest Medical Clinic and Hospital, and Emergency Clean-up Contractor.

In addition, at least one Superintendent and one Foreman on each MCI jobsite will be trained and certified in First-Aid and CPR. All Field Supervisory personnel at MCI will be trained in First-Aid and Cardiopulmonary Resuscitation (CPR) procedures, and receive refresher training on a periodic basis to maintain current their certification.

In the case of a serious injury or sudden illness, First-Aid is the immediate temporary treatment given before emergency response personnel arrive at the jobsite, or the services of a physician can be obtained. First-Aid must be limited to only treatment that is necessary to prevent death or further injury, relieve pain, or counteract shock.

Basic Steps to Remember

- If toxic or suffocating gases or lack of oxygen are suspected, do not attempt a rescue without proper breathing equipment.
- Move an injured person only to get him or her out of danger. Do not move an unconscious person except to save his or her life.
- Treat the most serious conditions first: stoppage of breathing, severe bleeding and shock.
- Try to locate all injuries.
- Activate the company's Emergency Medical System (EMS), which entails having the pre-designated person(s) contact and coordinate emergency medical response to the jobsite and location of the person. Keep person comfortable. Do not give liquids to an unconscious person, a person in shock, or one suspected of having a heart attack.

Cardiopulmonary Resuscitation (CPR): The ABCs of CPR are a simple procedure, as simple as A-B-C: Airway, Breathing, and Circulation.

Airway

If you find a collapsed person, determine if the person is unconscious by gently shaking a shoulder and shouting "Are you all-right?" If there is no response, shout for help. If the person is not lying flat on his or her back, roll the person over, moving the entire body at one time as a unit. Then open the airway. To open the person's airway, lift up the chin gently with one hand while pushing down on the forehead with the other to tilt the head back. Once the airway is open, place your ear close to the person's mouth:

- Look at the chest for movement.
- Listen for sounds of breathing.
- Feel for breath on your cheek.

If none of these signs are present, then the person is not breathing.

If opening the airway does not cause the person to begin to breathe spontaneously, you must provide rescue breathing, provided you are trained and equipped to do so. Otherwise, obtain assistance from a co-worker or supervisor who is trained to perform rescue breathing.

Breathing

The best way to provide rescue breathing is by using the mouth-to-mouth technique, using a protective mouth shield.

Using the thumb and index finger of the hand that is on the person's forehead, pinch the person's nose shut while keeping the heel of the hand in place to maintain head-tilt. Your other hand should remain under the person's chin, lifting up.

Immediately give two full breaths while maintaining an air-tight seal with your mouth on the protective mouth shield.

Circulation

After giving the two full breaths, locate the person's carotid artery pulse to see if the heart is beating. To find the carotid pulse, take your hand that is supporting the chin and locate the Adam's apple (voice box); slide the tips of your fingers, down into the groove beside the Adam's apple; feel for the pulse.

If you cannot find the pulse, you must provide artificial circulation, in addition to rescue breathing.

External Chest Compressions

Artificial circulation is provided by external chest compressions. In effect, when you apply rhythmic pressure on the lower half of the person's breastbone, you are forcing the heart to pump blood. To perform external chest compressions properly, kneel at the person's side near the chest. With the middle and index fingers of the hand nearest the legs, locate the notch where the bottom ribs of the two halves of the rib cage meet in the middle of the chest. Place the heel of one hand on the sternum next to the fingers that located the notch. Place your other hand on top of the one that is in position. Be sure to keep your fingers up off the chest wall. You may find it easier to do this if you interlock your fingers.

Bring your shoulders directly over the person's sternum as you compress downward, keeping your arms straight. Depress the sternum about 1 1/2 to 2 inches for an adult person. Then relax pressure on the sternum completely. Do not remove your hands from the person's sternum, but do allow the chest to return to its normal position between compressions. Relaxation and compression should be of equal duration.

If you must provide both rescue breathing and external chest compressions, the proper ratio is 15 chest compressions to 2 breaths. You must compress at the rate of 80 to 100 times per minute. **In summary:** Ratio of Compressions to Breaths 15:2; Pressure Points for Arterial Bleeding; Rate of Compressions 80-100 times/minute.

Bleeding Severe

Treatment:

- Apply pressure directly over wound with as clean a dressing as possible and maintain pressure until professional assistance is available. If dressing becomes saturated, do not remove but cover with additional clean dressings. In most cases, bleeding can be controlled by this method.
- If bleeding is very severe or continues, apply in addition to direct pressure over the wound, pressure at the four pressure points (two arms, two legs).
- If all the above fail to control bleeding, a tourniquet may be applied 2 inches above the site of the bleeding. Once applied do not loosen unless on the advice of a physician. Remember: A tourniquet is dangerous. When a tourniquet is applied, you are sacrificing a limb for a life. Be certain you need it.
- Elevate the bleeding part, except in case of a fractured limb or possible neck or back injury. Loosen tight clothing and treat for shock.

Fractures

Symptoms: Loss of motion in adjacent joints, swelling, protruding bones, pain, and tenderness. Compare with the corresponding body part for deformity.

Treatment: If fracture is even suspected, treat as such. First treat for bleeding if present. If an ambulance is not available, immobilize the limb and apply splints. An adjacent sound limb (leg, finger, toe, etc.) will serve as a splint in many cases. Do not attempt to straighten or manipulate a fracture. Apply the splint without changing the position of the limb. Note: Any straight stick or rolled magazine may be used if long enough to immobilize the entire limb. A belt or belts, ties, or strips of clothing may be used to tie the splint in place. Do not affix ties within six inches above or below the break. Do not move a person with a suspected fracture of the back except in an extreme emergency, and then only with extreme care. If the person must be moved, slip a straight board under him or her, keeping him or her in the same position as when the break occurred.

Choking

Symptoms: Conscious person can't breathe, cough, or speak due to object in airway.

Treatment: Wrap your arms around the person just below ribs, placing thumb side of one fist against abdomen. Grasp fist with other hand and give quick upward thrusts (the Heimlich maneuver). Continue until object is expelled or person begins to breathe or cough.

If the person becomes unconscious:

- Position person on back, arms by side. Call out "Help!", or if others respond, activate the EMS system.
- Perform finger sweep to try to remove the foreign body.
- Open airway (head-tilt/chin-lift) and attempt rescue breathing.
- If unsuccessful, give 10 sub diaphragmatic abdominal thrusts (the Heimlich maneuver).

Repeat sequence: perform finger sweep, open the airway, attempt rescue breathing, perform abdominal thrusts, until successful.

Be persistent. Continue uninterrupted until obstruction is relieved or advanced life support is available. After obstruction is removed, begin the ABC's of CPR if necessary.

When successful, have the person examined by a physician as soon as possible.

Shock

Shock is the typical reaction of the body to loss of blood or any serious injury. Shock should be suspected and treated even if all symptoms are not obvious. SHOCK CAN KILL.

Symptoms: Face may be pale, dull, and anxious. Expression may be vacant, person is vague, eyelids are drooped. Cold perspiration is on forehead and palms of hands. Skin is cold and clammy. Pulse is weak and shallow; person is sighing, yawning, or gasping. Chills, nausea, and vomiting may be present.

Treatment: Lay person on back on blanket or coat with body flat. Keep person warm with covering or external heat (only if it is a cold day). Elevate legs unless there is a head or neck injury. Do not give fluids by mouth.

Burns

Thermal Burns

Symptoms: Reddening of skin and blistering or charring of tissues caused by heat (dry or moist) or electricity.

Treatment: Treatment of the burned person consists of immersing the burned area in cold water as soon as possible after the injury. Temperature of the water should be comfortably cold for the person. This is usually slightly under 70°F. Ice cubes may be added frequently to maintain a low temperature, since heat from the burned area raises water temperature. Patients with burns over large areas of the body should be transported to a hospital immediately. Best results follow the earliest treatment after the burn.

Do not insist on placing a sensitive burn under a cold water tap or shower if the pain caused by water pressure may offset the relief sought by the cold water and induce shock.

If burned surfaces are raw, cover with a loose, light dry dressing after the water treatment is completed. Severe or extensive burns will need the skilled services of a team of doctors in a hospital.

Do not apply butter, lard, grease or greasy salves on burns. In any type of burn injury situation, remove all tight-fitting jewelry, watches, bracelets, and especially rings from the person because the body tends to swell when burn injuries are involved.

Clothing Fire

- **Do Not Run.** Running fans flames.
- If possible, wrap yourself in a rug, blanket, or woolen coat. Wrap it around your neck first. Drop to the floor and roll over slowly.
- If there is nothing to wrap yourself in, drop to floor and roll over slowly.
- Try not to inhale the flame. Put your hands on opposite shoulders and pull your arms against your face for protection.
- If water is nearby, douse yourself and roll in the spilled water on the floor. If clothing of another person takes fire, use similar measure. It may be necessary to physically force him or her to lie down so you can roll him or her. Then, if water is handy, apply at once.

Chemical Burns

If exposed to any chemical, flush the affected areas immediately and continuously with large amounts of water for at least fifteen (15) minutes. Remove the chemical completely and then treat as any other burn.

All contaminated clothing should be removed immediately. The cold-water treatment described for thermal burns is effective for chemical burns as well.

Treat chemical burns of the eye immediately by washing out the chemical completely with a continuous, gentle stream of water from a tap or over a drinking fountain for at least 15 minutes. Cover with sterile compress and get the injured person to a doctor as soon as possible.

Heat Prostration/Heat Stroke (or Sunstroke)

Do Not confused with heat exhaustion.

Symptoms: Red face, no perspiration, skin hot and dry, pulse strong and rapid, breathing like snoring, unconsciousness, temperature high. Usually begins with headache, dizziness, depressed feeling, and dryness of mouth and skin.

Treatment:

- Heat stroke is a medical emergency; activate the EMS. Quickly move the person to a cool place and remove all clothing. Place the person in a bath tub filled with cold water. If a tub is not available:
 - ◇ lay the person on their back;
 - ◇ apply cold packs to the neck and arm pits;
 - ◇ wrap their body in a sheet and pour on cold water.
- Transfer the person to a medical treatment facility as soon as the steps are complete. **Do not give any stimulants to the person.**

Heat Exhaustion

Do Not confuse with heat prostration.

Symptoms: Pale face, sweating, skin moist and cool. Pulse beat is weak and shallow; temperature is normal. Symptoms usually begin with dizziness, nausea, weakness, chills, and shivering.

Treatment: Have the person lie down and keep him/her cool. Give ample water that is slightly cool, not ice cold. The person must be able to hold the container and drink essentially unassisted. The person may choke if the rescuer holds the container and pours the water into the person's mouth.

Foreign Body In Eye

A foreign body in the eye must be removed immediately, preferably by a doctor, but if none is available at once, by a supervisor or some other person qualified to treat such cases. The eye must not be rubbed, as this may drive the particle deeper into tissues. The eye may be irrigated with water or eye wash preparation. If this does not correct the problem, medical attention is required. Place a light compress over the eye to protect it until person is taken to a doctor. Do not use an eye cup. Do not remove an impaled object from the eye.

First-Aid Kit 1512(c)

Whenever MCI is working on a jobsite, at least one First-Aid kit in a weatherproof container will be provided and maintained on the jobsite. The contents of the First-Aid kit shall be inspected regularly to ensure that the expended items are promptly replaced. The contents of the First-Aid kit shall be arranged to be quickly found and remain sanitary. First-Aid dressings shall be sterile in individually sealed packages for each item.

Other supplies and equipment, when provided, shall be in accordance with the documented recommendations of MCI's authorized, licensed physician. These will be based upon consideration of the extent and type of emergency care to be given, the anticipated incidence and nature of injuries and illnesses, and the availability of transportation to medical care.

Drugs, antiseptics, eye irrigation solutions, inhalants, medicines, or proprietary preparations shall not be included in first-aid kits unless specifically approved, in writing, by MCI's authorized, licensed physician.

The minimum First-Aid supplies shall be determined by MCI's authorized, licensed physician or in accordance with the following Table:

First-Aid Supplies

Supplies for First-Aid Dressings in Adequate Quantities Consisting of:	Type of Supply Required by Number of Employees			
	1-5	6-15	16-200	over 200
1. Adhesive Dressings	X	X	X	X
2. Adhesive Tape Rolls, 1-inch wide	X	X	X	X
3. Eye Dressing Packet	X	X	X	X
4. 1-inch Gauze Bandage Roll or Compress		X	X	X
5. 2-inch Gauze Bandage Roll or Compress	X	X	X	X
6. 4-inch Gauze Bandage Roll or Compress		X	X	X
7. Sterile Gauze Pads, 2-inch Square	X	X	X	X
8. Sterile Gauze Pads, 4-inch Square	X	X	X	X
9. Sterile Surgical Pads Suitable for Pressure Dressings			X	X
10. Triangular Bandages	X	X	X	X
11. Safety Pins	X	X	X	X
12. Tweezers and Scissors	X	X	X	X
*Additional Equipment in Adequate Quantities Consisting of:				
13. Cotton-Tipped Applicators			X	X
14. Forceps			X	X
15. Emesis Basin			X	X
16. Flashlight			X	X
17. Magnifying Glass			X	X
18. Portable Oxygen and its Breathing Equipment				X
19. Tongue Depressors				X
Appropriate Record Forms	X	X	X	X
Up-to-Date "Standard" or "Advanced" First-Aid Textbook, Manual or Equivalent	X	X	X	X
*To be readily available but not necessarily within the First-Aid Kit				

Provision for Obtaining Emergency Medical Services 1512(e)

Proper equipment for the prompt transportation of the injured or ill employee to a physician or hospital where emergency care is provided, or an effective communication system for contacting hospitals or other emergency medical facilities, physicians, ambulance and fire services, is provided for each jobsite by MCI. A poster, containing the telephone numbers of the following emergency services in close proximity to the jobsite, will be posted near the jobsite telephone, or otherwise made available to MCI employees where no jobsite telephone exists:

EMERGENCY

AMBULANCE _____

FIRE-RESCUE _____

HOSPITAL _____

PHYSICIAN _____

ALTERNATE _____

POLICE _____

CAL/OSHA _____

[POSTING IS REQUIRED BY TITLE 8 SECTION 1512(e)]

State of California
Department of Industrial Relations
Division of Occupational Safety and Health
PO Box 420603, San Francisco, CA 94142

Emergency Washing Facilities 1512(f)

Where the eyes or body of any MCI employee may be exposed to injurious or corrosive materials at a jobsite, suitable facilities for drenching the body or flushing the eyes with clean water will be provided, and be conspicuously and readily accessible at the jobsite.

Informing Employees of Emergency Procedures 1512(d)

MCI conducts training to inform all of our employees of the procedures to follow in case of an injury or illness, including reviewing the contents of this First-Aid & Medical Emergencies Section in our Safety Program. This employee training will be documented, with documentation maintained by the *Safety Director*.

HAZARD COMMUNICATION PROGRAM

Chemical Safety “An Employee’s Right to Know”

COMPANY POLICY

1. FOREWORD

This Hazcom program complies with [California Code of Regulations, Title 8, Section 5194. Hazard Communication](#), and details Mountain Cascade, Inc. policy regarding chemical labeling, Safety Data Sheets (SDS), chemical inventory, and relaying information about hazardous properties of chemicals to employees.

It is the policy of Mountain Cascade, Inc. that all employees be informed of the hazards associated with chemicals used at our site through a Hazcom/GHS program. This policy sets a basis for the health and safety of employees while working with chemicals.

Since this policy is not all-inclusive in regards to general health and safety hazards, or chemical hazards, it is imperative that employees understand that all safety policies shall be followed at all times.

This Hazcom program will be readily available in one of these ways:

Hard copies of the Hazcom program and SDSs will be kept at location(s) that are accessible to employees.

Electronic copies of the Hazcom program and SDS will be on a computer, server, website or other means that is accessible to employees.

Employees will be told how to access the Hazcom Program and SDSs during Hazcom training.

If you have questions on how to access the Hazcom Program and SDSs, ask your supervisor.

Please contact your supervisor if you have any questions regarding the Hazcom program or information on an SDS.

2. SCOPE

This program applies to all Mountain Cascade, Inc. operations.

This program applies to all known hazardous substances in the workplace that employees may be exposed to under normal conditions or in a foreseeable emergency.

Emergencies include equipment failure, rupture of containers, or failure of control equipment, which releases a hazardous substance into the workplace.

Substances exempted from the Hazcom standard are as follows:

Any hazardous waste as defined by regulations of the U.S. Environmental Protection Agency.

Tobacco or tobacco products.

Wood or wood products.

Articles that are a manufactured item that do not release, or otherwise result in exposure to, a hazardous substance under normal conditions of use or in a reasonably foreseeable emergency resulting from workplace operations.

Foods, drugs, or cosmetics intended for personal consumption by employees while in the workplace.

Consumer products packaged for distribution to, and use by, the general public are exempt from the Hazcom Standard, provided that employee exposure to the product is not significantly greater than the consumer exposure occurring during the principal consumer use of the product.

When consumer products are used in the workplace, the exemption applies if the employee uses the product in the same form, amount, concentration and manner as the general public would use it.

Work process where employees only handle substances in sealed containers which are not opened during normal conditions of use, as long as the following conditions are met:

Employers shall ensure that labels on incoming containers of hazardous substances are not removed or defaced.

3. RESPONSIBILITIES

It is the responsibility of each employee to:

Store chemicals properly.

Read the label of the container that they are handling.

Label containers that they transfer chemicals into if the container is not already labeled.

All employees, who may have exposure to hazardous chemicals during normal work or in emergency situations, must comply with the practices and procedures outlined in this program.

In addition to the above responsibilities, supervisory personnel are responsible for ensuring that:

Employees follow the Hazcom program,

Employees receive the proper training,

Safety training records are kept and

Employees have access to the Hazcom program and SDS.

Employees wear the proper Personal Protective Equipment (PPE),

All chemical containers in their area are properly labeled.

It is the responsibility of the management to ensure that:

The program is reviewed, and updating as necessary.

An SDS for every chemical in use is available at the work site,

The chemical inventory is updated as needed,

All chemicals that enter the facility are evaluated to determine if they are considered hazardous or not.

Hazcom training is provided.

4. LABELS

Original product label:

Original product labels must include:

the name of the material (trade name or chemical name)

hazard pictogram(s)

signal word,

hazard statements,

precautionary statements

Name, address, and emergency contact information of the manufacturer or distributor.

Employees shall not remove or deface labels.

Labels and warnings that are defaced or illegible must be replaced or the container labeled as a secondary container.

Secondary Containers:

When the contents of an original chemical container are transferred into a secondary container for in-house use (such as spray bottles), the secondary container will be labeled with:

the name of the material (trade name or chemical name)

hazard pictogram(s)

signal word

hazard statements

precautionary statements

The supervisors in each work area will ensure that all secondary containers are properly labeled.

Exception: Labeling is not required if the chemical will be used immediately by the employee transferring the chemical.

Labels and warnings that are defaced or illegible must be replaced.

The employee accepting the chemical shall be responsible for checking that incoming chemical containers are properly labeled with the manufacturer's label.

This applies to all chemicals from outside suppliers, including vendor trial substances.

Supervisors have the responsibility of ensuring that all chemical containers in their area(s) are properly labeled.

All labels must be legible, in English and prominently displayed.

The name of the material that appears on the manufacturer's label and the secondary label shall be the same as the name that appears in the chemical inventory, as well as the SDS.

When an SDS is updated to show new hazard information which recent scientific research or rule making has changed, the container shall be relabeled within thirty days upon receipt of such information.

If a particular hazardous substance is regulated by a substance-specific health standard, Mountain Cascade, Inc. will comply with any labeling or warning requirements specified in the substance-specific health standard.

Written materials such as signs, placards, process sheets, batch tickets, operating procedures or other written materials can be used in lieu of affixing labels as long as the alternative method identifies the containers to which it is applicable and conveys the required information.

If the identity of a chemical substance within a container is not known (chemical release or labeling error), then this substance shall be considered hazardous until determined otherwise.

The unknown material shall be labeled with any known hazards and shall be secured to prevent use.

5. SAFETY DATA SHEETS (SDS)

The SDSs program will be readily available in one of these ways:

Hard copies of the Hazcom program and SDSs will be kept at location(s) that are accessible to employees. Electronic copies of the Hazcom program and SDS will be on a computer, server, website or other means that is accessible to employees.

Employees will be told how to access the Hazcom Program and SDSs during Hazcom training.

If you have questions on how to access the Hazcom Program and SDSs ask your supervisor.

Employees who purchase chemicals will be responsible for obtaining an SDS.

The employee will then contact the chemical manufacturer or distributor to obtain the SDS, if one was not supplied with an initial shipment.

A copy of the letter or e-mail to the manufacturer is to be kept on file.

If the request is made by phone, details of the call must be logged.

If the chemical is not on the SDS inventory it must be added.

New SDSs must be added to all binders and/or electronic locations.

If an SDS contains information listed as a trade secret, a physician, nurse, industrial hygienist, safety professional, toxicologist, or epidemiologist can obtain this information, if necessary.

In emergency situations, manufacturers, importers, or employers are required to disclose, upon request, a specific chemical identity to those providing medical or other occupational health services to exposed employees if the request is in writing.

SDS's shall be retained for at least thirty years after the chemical is no longer in use in compliance with Cal/OSHA GISO 3204.

6. CHEMICAL INVENTORY

A chemical inventory of hazardous chemicals known to be present in the workplace shall be maintained. It shall identify the chemicals using the product identifier that is referenced on the appropriate safety data sheet

The inventory shall be maintained at the same location(s) as the Hazcom Program and SDSs.

When new chemicals are received the inventory will be updated as required, including the date when the chemical was introduced. The name on the inventory must match the name listed on the SDS.

Employees and contractors are allowed to review the inventory and obtain information from the SDS at any time during their work shift.

7. TRAINING

Employees shall be trained on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard is introduced into their work area.

Information and training may relate to general classes of hazardous chemicals to the extent appropriate and related to reasonably foreseeable exposures of the job.

Refresher training will be provided if employee(s) are using chemicals incorrectly.

At a minimum, such training will include:

Overview of the Hazcom Standard,

Operations in their work area where hazardous chemicals are present.

Location and availability of the Hazcom hazard communication program, including the list(s) of hazardous chemicals and SDS.

Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.).

Physical, health, simple asphyxiation, combustible dust and pyrophoric gas hazards, as well as hazards not otherwise classified, of the chemicals in the work area, and the measures they can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and PPE to be used.

Description of the health risks, including the signs and symptoms of exposure and any medical conditions that might be aggravated by exposure,

Procedures to follow if overexposure is suspected,

Explanation of the labeling system used, and how employees can obtain and use the appropriate hazard information.

Steps the company has taken to eliminate or reduce exposure,

Description of the procedures and equipment to be used when cleaning hazardous spills and leaks.

An explanation of pictograms.

HCS Pictograms and Hazards		
<p>Health Hazard</p>  <ul style="list-style-type: none"> ■ Carcinogen ■ Mutagenicity ■ Reproductive Toxicity ■ Respiratory Sensitizer ■ Target Organ Toxicity ■ Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> ■ Flammables ■ Pyrophorics ■ Self-Heating ■ Emits Flammable Gas ■ Self-Reactives ■ Organic Peroxides 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> ■ Irritant (skin and eye) ■ Skin Sensitizer ■ Acute Toxicity ■ Narcotic Effects ■ Respiratory Tract Irritant ■ Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none"> ■ Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> ■ Skin Corrosion/Burns ■ Eye Damage ■ Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> ■ Explosives ■ Self-Reactives ■ Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> ■ Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> ■ Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> ■ Acute Toxicity (fatal or toxic)

Employees shall be informed of the right:

To personally receive information regarding hazardous chemicals to which they may be exposed.

For their physician or collective bargaining agent to receive information regarding hazardous chemicals to which the employee may be exposed.

Against discharge or other discrimination due to the employee's exercise of the rights afforded pursuant to Cal/OSHA.

Every student attending the training is to sign the safety training form. The Safety Training Form is Attachment A in Section A—Injury and Illness Prevention Plan.

8. NON-ROUTINE TASKS

Employees shall not perform any hazardous non-routine tasks unless they have been specifically trained to perform the task.

A hazardous non-routine task is any task that an employee is not trained to perform, is not usually performed at a particular facility or due to its different or unusual nature, would require special training to safely perform.

Examples of hazardous non-routine tasks chemical spill clean-up.

When required the supervisor will conduct training concerning the hazards involved in a specific non-routine task.

This training at a minimum, will include:

The hazardous chemicals that may be present in such work.

Details of the safety precautions to be taken.

Details of the measures taken to reduce or eliminate the hazards.

Details of emergency procedures.

Specific chemical and physical hazards.

Proper PPE.

Additional safety measures such as lockout of electrical hazards, or the use of special engineering controls.

The person providing the training shall document the non-routine task training (such as the safety training form).

9. EMPLOYEE-OWNED CHEMICALS

Employee-owned chemicals are not allowed in the workplace.

Any employee wishing to bring a hazardous chemical, including consumer products, into the workplace, must first receive approval from their supervisor.

The above policy does not apply to the following:

Food, cosmetics, or any legal drug intended for personal consumption by employees while in the workplace.
Tobacco or tobacco products.

10. MULTI-EMPLOYER WORKSITES

To ensure chemical safety on multi-employer worksites, Mountain Cascade, Inc. will provide the following information to other contractors in the same work area and request this information from them.

Identity of hazardous substances that may be present in the area where the contractor may be working in.

Precautions that may be taken such as PPE, to reduce or prevent exposure to hazardous chemicals.

Emergency procedures to be followed in case of an emergency such as an evacuation, fire, chemical spill, or chemical exposure.

Location where the Hazcom program and SDSs are kept and how to access said information

Information on hazard labels, including pictograms, or numerical labeling (if used) and details on how to read and interpret the labels.

If a contractor brings chemicals on site, it is that contractor's responsibility to always have an SDS for each chemical with them. **SDS's will be available to Owners at request.**

11. EXPOSURE MONITORING

Exposure monitoring will be done if:

An employee or supervisor suspects that exposure to a hazardous material exceeds the allowable limit or Employees show signs and symptoms of overexposure.

The results of the monitoring will be provided to affected employees within 15 days of receiving the results of the monitoring.

12. PROPOSITION 65

The State of California has generated a list of chemicals that it considers to cause cancer and/or reproductive harm.

This list is referred to as the Proposition (Prop) 65 list.

The Prop 65 list is located in Title 22, CCR, §12000 (Safe Drinking Water and Toxic Enforcement Act of 1986).

Cal/OSHA requires that employees, visitors and contractors be informed of the presence of Prop 65 chemicals in a facility.

There is no quantity threshold, any amount requires notification.

It is the supervisor's responsibility to determine if a Prop 65 chemical is onsite.

If a chemical that is onsite contains Prop 65 chemicals place the following or a similar sign at the entrance(s) to the worksite or building.



13. EMERGENCY RESPONSE

Eye Contact:

Promptly flush eyes with water for a minimum of 15 minutes and seek medical attention.

Skin Contact:

Promptly flush the affected area with water for a minimum of 15 minutes and remove any contaminated clothing and seek medical attention.

Ingestion:

Contact the poison control center.
Poison Control – 1-800-222-1222.

Spill Clean-up.

Promptly clean up small chemical spills, using appropriate protective apparel and equipment and proper disposal.

Small is less than 1 gallon for hazardous chemicals.

Extremely hazardous chemical spills are to be handled by properly trained personnel only.

Only properly trained personnel are authorized to clean up large chemical spills.

14. RECORDKEEPING

The hazardous chemicals inventory and SDSs shall be archived for at least 30 years past the last date of use in compliance with Cal/OSHA GISO 3204.

Records of Hazcom training will be kept according to the Injury and Illness Prevention Program (IIPP) requirements.

Attachment A – Chemical Inventory

List chemical name here

List chemical manufacturer here

List date

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SANDBLASTING PROGRAM

SANDBLASTING PROGRAM

Dangers of Sandblasting – Employee Safety Talk

Protect your health from the dangers of sandblasting! Sandblasting with silica sand makes a lot of dust. The really dangerous stuff is so fine you cannot see it. Breathing air containing this fine dust can damage your lungs. You must always wear a helmet when sandblasting and there is only one type of helmet that will protect you. This type of helmet you must use is a helmet that is supplied with clean air. The helmet must be a good fit and in good working condition.

- A damaged helmet is dangerous. Do not use equipment that has parts missing or is damaged.
- The helmet must also fit well so that dangerous dusty air does not leak into the helmet while you are working. The air supplied to your helmet must be clean and free of dangerous dust, to be sure that the air is clean.
- Your foreman is required, by law, to provide you with the forced air full face helmet and the clean air supply to go with it. He/she is also required to train you how to use it, maintain it and keep it clean.
- Your foreman must check the dust levels in the area where sandblasting is being done.
- Medical clearance by a physician is required in order to use respiratory equipment.

DO NOT FORGET!

- Invisible dangerous dust is made when sandblasting with silica sand.
- You must wear an air supplied helmet when sandblasting.
- Your foreman knows the equipment and training you require.
- If you have any doubts or questions ask your foreman.

When you use the right equipment and follow the operations described in the Sandblasting Safety Program, your health exposure to hazards from silica dust will be minimized.

LOCKOUT – TAGOUT PROCEDURES

LOCK-OUT / TAG-OUT PROCEDURE

The purpose of Lock-out / Tag-Out Safety Procedures is to prevent an injury or accident while working on tools, equipment or systems that may be energized or have stored energy that could seriously injure an individual if the energy was inadvertently released. It is very important to remember that lock-out / tag-out procedures apply to more than just electrical energy systems.

Serious injury could occur from energy stored in other types of equipment or systems such as mechanical, piping and gravity. It is important to blank out or disconnect pipe systems and block up equipment that might fall if it is not blocked up.

The basic idea of lock-out / tag-out procedures is to ensure that each individual is protected while in a hazardous location. Accidental release of energy from that system can be prevented by having a lock and tag placed at the source of the energy of that system.

This could be as simple as disconnecting the plug of a saw while changing the blade or as complicated as a plant system review with the facilities systems coordinator. The rule is: While working, take steps necessary to assure that energy cannot be released that would harm anyone. This can be achieved by utilizing physical locks or by disconnecting from the power source. Do not assume that another individual or someone from the plant has made the system safe.

After a system has been locked out, always test the system by opening a valve or pushing the start or on button and/or by usage of testing equipment such as a voltage meter. Make sure all personnel are clear of potential harm when checking to see if there is stored energy left in the system.

Due to the threat of potential injury any individual(s) who violates lock-out / tag-out procedures will be subject to immediate termination.

Questions regarding the safety of equipment or systems on the project should immediately be referred to a direct supervisor. If the supervisor has any doubts the project superintendent and/or Mountain Cascade's safety department should immediately be contacted.

When working at an existing facility, lock-out procedures will be reviewed with the facilities manager. Any lock-out applied may need to be in conjunction with the facility lock-out procedures. Project specific lock-out / tag-out protocols may need to be developed. When developing site/facility specific protocol for lock-out / tag-out, the Mountain Cascade safety department will coordinate with the project and owner representatives. Site specific lock-out / tag-out protocols will include at a minimum all OSHA requirements and at least: how shift work lock-out / tag-out will be controlled/monitored and procedure for removing locks/tags if/when person placing lock/tag cannot be identified or located.

When locking out systems the Mountain Cascade lock-out / tag-out plan must be utilized and prior review must be completed by the Mountain Cascade superintendent, or his/her designee. The Mountain Cascade reviewer is to ensure that involved personnel are appropriately trained in the lock-out / tag-out program. Mountain Cascade recognizes lock-out / tag-out to be performed only by trained competent individuals, utilizing the process of "one lock, one key, and one person".

There are many different styles of lock-out tags. All tags must include at a minimum the following: Subcontractor company name, individual name placing lock and tag, supervisor name and contact information, date lock tag placed, date to be removed and in case of emergency contact information.

General Requirements

Mountain Cascade, Inc. will establish lock-out / tag-out procedures through the use of this document. This standard practice instruction covers the servicing and maintenance of machines and equipment in which the unexpected energizing or startup of the machines or equipment or release of stored energy could cause injury to employees.

- Application – 2.1 – This instruction applies to the control of energy during servicing and/or maintenance of machines and equipment. Normal production operations are not covered. Servicing and/or maintenance which takes place during normal production operations is covered if:
 - 2.1.1 – an employee is required to remove or bypass a guard or other safety device.
 - 2.1.2 – an employee is required to place any part of his or her body into an area on a machine or piece of equipment where work is actually performed upon the materials being processed (point of operation) or where an associated danger zone exists during a machine operating cycle.
- Exceptions – Minor tool changes and adjustments, and other minor servicing activities, which take place during normal production operations, are not covered if they are routine, repetitive and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection in accordance with company operational procedures. – This instruction does not apply to the following.
 - 2.1.3.1 Work on cord and plug connected electric equipment for which exposure to the hazard of unexpected energizing or startup of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under exclusive control of the employee performing the servicing or maintenance.
 - 2.1.3.2 hot tap operations involving transmission and distribution systems for substances such as gas, steam, water or petroleum products when they are performed on pressurized pipelines, provided it is demonstrated that (1) continuity of service is essential; (2) shutdown of the system is impractical; and (3) documented company procedures are followed, and special equipment is used which will provide proven effective protection for our employees.

Program Implementation

This employer will establish a program and utilize procedures for affixing appropriate lock-out devices or tag-out 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.

- **Energy Control Program.** This employer shall establish a program consisting of energy control procedures, employee training and periodic inspections to ensure that before any employee performs any servicing or maintenance on a machine or equipment where the unexpected energizing, start-up or release of stored energy could occur and cause injury, the machine or equipment shall be isolated from the energy source, and rendered inoperative.
 - Tag-out. If an energy isolating device is not capable of being locked out, this employer's energy control program shall utilize a tag-out system.
 - Lock-out. If an energy isolating device is capable of being locked out, this employer's energy control program shall utilize lock-out, unless it can be demonstrated that the utilization of a tag-out system will provide full employee protection.
 - Future requirements. Whenever replacement or major repair, renovation or modification of a machine or equipment is performed, and whenever new machines or equipment are installed, energy isolating devices for such machine or equipment shall be designed to accept a lock-out device.
- **Full Employee Protection –**
 - Tag-out Location. When a tag-out device is used on an energy isolating device which is capable of being locked out, the tag-out device shall be attached at the same location that the lock-out device would have been attached, and this employer shall demonstrate that the tag-out program will provide a level of safety equivalent to that obtained by using a lock-out program.
 - Lock-out Equivalency Demonstration. In demonstrating that a level of safety is achieved in the tag-out program is equivalent to the level of safety obtained by using a lock-out program; this employer shall demonstrate full compliance with all tag-out related provisions together with such additional elements

as are necessary to provide the equivalent safety available from the use of a lock-out device. Additional means to be considered as part of the demonstration of full employee protection shall include where possible the implementation of additional safety measures such as the:

- Removal of an isolating circuit element.
 - Blocking of a controlling switch.
 - Opening of extra disconnecting devices.
 - Removal of valve handle to reduce the likelihood of inadvertent energizing.
- **Energy Control Procedure Exceptions.** Once a facility evaluation has been accomplished, documented procedures will not be developed when the following conditions exist:
 - The machine or equipment has no potential for stored or residual energy or re-accumulation of stored energy after shut down which could endanger employees.
 - The machine or equipment has a single energy source which can be readily identified and isolated.
 - The isolation and locking out of that energy source will completely de-energize and de-activated the machine or equipment.
 - The machine or equipment is isolated from that energy source and locked out during servicing or maintenance.
 - A single lock-out device will achieve a locked-out condition.
 - The lock-out device is under the exclusive control of the authorized employee performing the servicing or maintenance.
 - The servicing or maintenance does not create hazards for other employees
 - This employer, in utilizing this exception, has had no accidents involving the unexpected activation or re-energizing of the machine or equipment during servicing or maintenance in the event of such occurrences, energy control procedures will be developed.
 - **Energy Control Procedures**
 - Once a facility evaluation has been accomplished, procedures shall be developed, documented and utilized for the control of potentially hazardous energy.
 - Procedural format. The following format will be followed for each machine requiring procedures. The safety officer will be responsible for the implementation of these procedures. The procedures shall clearly and specifically outline the scope, purpose, authorization, rules and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance including, but not limited to, the following:
 - A specific statement of the intended use of the procedure.
 - Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy (manufacturers specifications will be followed where ver possible).
 - Specific procedural steps for the placement, removal and transfer of lock-out devices or tag-out devices and the person(s) responsible for them
 - Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lock-out devices, tag-out devices and other energy control measures.
 - **Facility/Department Evaluation.** This employer shall evaluate our facility(s) by department to determine which machines or pieces of equipment require steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy. A complete listing of machines/equipment having procedures will be maintained.
 - List will contain information such as; Department, Machine #/ID, Evaluated Date, Proc., Dev.
 - **Protective Materials and Hardware.** Appropriate lock-out devices such as; locks, tags, chains, wedges, key blocks, adapter pins, self-locking fasteners or other hardware shall be provided by this employer for isolating, securing or blocking of machines or equipment from energy source based on the individual machine/equipment evaluation conducted by the following personnel authorized to evaluate lock-out / tag-out requirements:

- Selection Criteria. Lock-out / Tag-out devices shall be singularly identified, shall be the only devices used for controlling energy, shall not be used for other purposes and shall meet the following requirements:
 - Selected lock-out and tag-out devices shall be capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected.
 - Selected tag-out devices shall be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible.
 - Tags shall not deteriorate when used in corrosive environments such as areas where acid and alkali chemicals are handled and stored.
 - Standardization within the facility. Lock-out and tag-out devices shall be standardized within the facility in at least one of the following criteria: Color, shape or size and additionally in the case of tag-out devices, print and format shall be standardized.
- Removal Requirements.
 - Lock-out devices shall be substantial enough to prevent removal without the use of excessive force or unusual techniques, such as with the use of bolt cutters or other metal cutting tools.
 - Tag-out devices, including and their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal. Tag-out device attachment means shall be of 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-environmental-tolerant nylon cable tie.
- Identification Requirements.
 - Lock-out / Tag-out devices shall indicate the identity of the employee applying the device(s).
 - Tag-out devices shall warn against hazardous conditions if the machine or equipment is energized and shall include a legend such as the following: Do Not Start, Do Not Open, Do Not Close, Do Not Energize, Do Not Operate, etc.
- **Periodic Inspections and Certifications.**
 - Inspections – this employer shall conduct a periodic inspection of the energy control procedure for each machine or piece of equipment at least annually to ensure that the procedure and the requirements of this instruction are being followed.
 - The periodic inspection shall be performed by an authorized employee other than the ones utilizing the energy control procedure being inspected.
 - Inspections will be conducted by the following personnel authorized to evaluate lock-out / tag-out requirements:
 - The periodic inspection shall be conducted to correct any deviations or inadequacies identified.
 - Lock-out inspection – where lock-out is used for energy control, the periodic inspection shall include a review, between the inspector and each authorized employee, of that employee’s responsibilities under the energy control procedure being inspected.
 - Tag-out inspection – where tag-out is used for energy control, the periodic inspection shall include a review, between the inspector and each authorized and affected employee, of that employee’s responsibilities under the energy control procedure being inspected.
 - Certifications – this employer shall certify that the periodic inspections have been performed. The certification shall as a minimum identify:
 - The machine or equipment on which the energy controls procedures was being utilized.
 - The date of the inspection.
 - The employees included in the inspection.
 - The person performing the inspection.
- **Initial Training**

- This employer shall provide training to ensure that the purpose and function of the energy control program is understood by employees and that the knowledge and skills required for the safe application, usage and removal of the energy controls are acquired by employees. The 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 re-start or re-energize machines or equipment which are locked out or tagged out.
 - When tag-out systems are used, employees shall also be trained in the following limitations of tags:
 - ❖ Tags are essentially warning devices affixed to energy isolation devices and do not provide the physical restraint on those devices that is provided by a lock.
 - ❖ When a tag is attached to an energy isolating means, it is not to be removed without authorization of the authorized person responsible for it and it is never to be bypassed, ignored or otherwise defeated.
 - ❖ Tags must be legible and understandable by all authorized employees, affected employees and all other employees whose work operations are or may be in the area, in order to be effective. Non-legible or missing tags will be reported to the safety officer immediately.
 - ❖ Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace.
 - ❖ Tags may evoke a false sense of security and their meaning needs to be understood as part of the overall energy control program
 - ❖ Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.
- **Refresher Training.**
 - 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 processes that present a new hazard, or when there is a change in the energy control procedures.
 - Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever this employer has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.
 - The retaining shall re-establish employee proficiency and introduce new or revised methods and procedures, as necessary.
 - Certification – this employer 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.
- **Energy Isolation.** Lock-out or tag-out shall be performed only by the authorized employees who are performing the servicing or maintenance.
- **Notification of Employees.** Affected employees shall be notified of the application and removal of lock-out devices or tag-out devices. Notification shall be given before the controls are applied, and after they are removed from the machine or equipment.
- **Application of Control.** The lock-out or tag-out procedures shall cover the following elements and actions and shall be done in the following sequence:

- Preparation for shutdown. Before an authorized or affected employee turns off a machine or equipment, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled and the method or means to control the energy.
- Machine or equipment shutdown. The machine or equipment shall be turned off or shut down using the procedures established for the machine or equipment. An orderly shutdown must be utilized to avoid any additional or increased hazard(s) to employees as a result of the equipment stoppage.
- Machine or equipment isolation. All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy.
- Lock-out device application:
 - Lock-out or tag-out devices shall be affixed to all energy isolating device by an authorized employee.
 - Lock-out devices, where used, shall be affixed in a manner that will hold the energy isolating device in a “safe” or “off” position.
 - Tag-out devices, where used, shall be affixed in such a manner as will clearly indicate that the operation or movement of energy isolating devices from the “safe” or “off” position is prohibited.
- Tag-out device application:
 - Where tag-out devices are used with energy isolating devices designed with the capability of being locked, the tag attachment shall be fastened at the same point at which the lock would have been attached.
 - Where a tag cannot be affixed directly to the energy isolating device, the tag shall be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.
- Stored Energy:
 - Following the application of lock-out or tag-out devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained and otherwise rendered safe.
 - If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.
 - Verification of isolation. Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and de-energizing of the machine or equipment has been accomplished.
- **Release from Lock-out or Tag-out**
 - Before lock-out or tag-out devices are removed and energy is restored to the machine or equipment, procedures shall be followed and actions taken by the authorized employee(s) to ensure the following:
 - The machine or equipment. The work area shall be inspected to ensure that non-essential items have been removed and to ensure that machine or equipment components are operationally intact.
 - Employees. The work area shall be checked to ensure that all employees have been safely positioned or removed.
 - After lock-out or tag-out devices are removed. After lock-out or tag-out devices are removed and before a machine or equipment is started, affected employees shall be notified that the lock-out or tag-out device(s) have been removed.
 - Lock-out and tag-out device(s) removal. Each lock-out or tag-out device shall be removed from the energy isolating device by the employee who applied the device. When the authorized employee who applied the lock-out or tag-out devices is not available to remove it, that device may be removed under the direction of the safety officer provided that specific procedures and training for such removal have been developed, documented and incorporated

into this employer's energy control program. This employer shall demonstrate that the specific procedure provides equivalent safety to the removal of the device by the authorized employee who applied it. The specific procedure shall include at least the following elements:

- ❖ Verification that the authorized employee who applied the device is not at the facility.
- ❖ Making all reasonable efforts to contact the authorized employee to inform him/her that his/her lock-out or tag-out device has been removed.
- ❖ Ensuring that the authorized employee has this knowledge before he/she resumes work at that facility.

○ **Testing of Machines, Equipment or Components.**

➤ Testing or positioning of machines, equipment or components thereof. In situations in which lock-out or tag-out devices must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine, equipment or component thereof, the following sequence of actions shall be followed:

- Clear the machine or equipment of tools and materials.
- Remove employees from the machine or equipment area.
- Remove the lock-out or tag-out devices as specified as part of the individual machine procedures.
- Energize and proceed with testing or positioning.
- De-energize all systems and re-apply energy control measures in accordance with machine procedures and continue the servicing and/or maintenance.

○ **Non-Company Personnel (contractors, etc.).**

- Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this instruction, this company and the outside employer shall inform each other of their respective lock-out or tag-out procedures.
- This company shall ensure that his/her employees understand and comply with the restrictions and prohibitions of the outside employer's energy control program.

○ **Group Lock-out or Tag-out.**

- When servicing and/or maintenance is performed by a crew, craft, department or other group, they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lock-out or tag-out device.
- Group lock-out or tag-out devices shall be used in accordance with the procedures required by this instruction governing individual procedures which shall include, but not necessarily limited to, the following specific requirements:
 - Primary responsibility will be vested in an authorized employee for a set number of employees working under the protection of a group lock-out or tag-out device (such as an operations lock).
 - Provision for the authorized employee to ascertain the exposure status of individual group members with regard to the lock-out or tag-out of the machine or equipment will be made.
 - When more than one crew, craft, department, etc. is involved, assignment of overall job-associated lock-out or tag-out control responsibility will be vested to an authorized employee designated to coordinate affected work forces and ensure continuity of protection.
 - Each authorized employee shall affix a personal lock-out or tag-out device to the group lock-out device, group lockbox or comparable mechanism when he/she begins work, and shall remove those devices when he/she stops working on the machine or equipment being serviced or maintained.

○ **Shift or Personnel Changes.**

- Specific procedures shall be utilized during shift or personnel changes to ensure the continuity of lock-out or tag-out protection, including provision for the orderly transfer of lock-out or tag-out protection, between off-going and on-coming employees, to minimize exposure to hazards from the unexpected energizing or start-up of the machine or equipment, or the release of stored energy.

○ **Definitions Applicable to this Instruction.**

- Affected employee – an employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lock-out or tag-out, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.
- Authorized employee – a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.
- Capable of being locked out – an energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out, if lock-out can be achieved without the need to dismantle, rebuild or replace the energy isolating device or permanently alter its energy control capability.
- Energized – connected to an energy source or containing residual or stored energy.
- Energy isolating device – a mechanical device that physically prevents the transmission or release of energy, including but not limited to the following:
 - A manually operated electrical circuit breaker.
 - A disconnect switch.
 - A manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently.
 - A line valve, a block and any similar device used to block or isolate energy.
 - Push buttons, selector switches and other control circuit type devices are not energy isolating devices.
- Energy sources – any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy.
- Hot tap - a procedure used in the repair, maintenance and services activities which involves welding on a piece of equipment (pipeline, vessels or tanks) under pressure, in order to install connections or appurtenances. It is commonly used to replace or add sections of pipeline without interruption of service for air, gas, water, steam and petrochemical distribution systems.
- Lock-out – the placement of a lock-out 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 lock-out device is removed.
- Lock-out device – a device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.
- Normal production operations – the utilization of a machine or equipment to perform its isolation production function.
- Servicing and/or maintenance – workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying and maintaining and/or servicing machines or equipment and adjusting or tool changes, where the employee may be exposed to the unexpected energizing or start-up of the equipment or release of hazardous energy.
- Setting up – any work performed to prepare a machine or equipment to perform its normal production operation.
- Tag-out – the placement of a tag-out 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 tag-out device is removed.
- Tag-out device – a prominent warning device, such as a tag and a means of attachment, which can be securely fastened to 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 tag-out device is removed.

LOCK -OUT / TAG-OUT WORK PLAN

Project Name:



555 Exchange Court
Livermore, CA 94550

Job Number:
Job Address:
Job Phone/Fax:

LOCK- OUT / TAG-OUT WORK PLAN

CONTRACTOR: _____
TIME & DURATION OF LOCK-OUT: _____
PURPOSE & SCOPE OF WORK: _____

MACHINE, EQUIPMENT OR SYSTEM & LOCATION: _____

PROCEDURES

The purpose of the Mountain Cascade lock-out / Tag-out Procedure and Plan System is to protect personnel from injury caused by unexpected energizing, start-up, or release of stored energy. These procedures must be followed before any work begins that would place any individual in danger such as: maintenance, repair, demolition or installation of equipment or systems.

Due to the nature of this work in many cases work will be performed on equipment or systems at existing facilities controlled by our clients. When this is the case the representative of the client or facility will be directly involved in evaluating the shutdown and lock-out / tag-out procedures. They may also place their individual lock at the isolating device.

At times subcontractors are required to lock-out equipment or systems in facilities still under construction or under the control of the general contractor. Locks will be placed by the individual authorized by Mountain Cascade and/or the subcontractor's representative.

LOCK-OUT PROCEDURE

- Notify all affected personnel of lock-out and reason.
- Identify all energy sources (redundant sources of energy).
- Shutdown the machine or system using normal shutdown procedure.
- Isolate the machine or system by operating the switch, valve or other energy-isolating device.
- Secure the energy-isolating device with a lock and attach a completed safety tag to the lock.
- Block, bleed down or otherwise control all stored energy.
- Verify that isolation and de-energizing have been accomplished by grounding or attempting to operate the equipment or system.
- Return controls to the off position.

RELEASE FROM LOCK-OUT

- Check during the system check-out, the equipment or system to ensure it is in safe operating condition. Place a safety monitor at the equipment.
- Remove all tools, equipment and materials from the work area.
- Notify all affected personnel that lock-out is being removed.
- Remove the lock-out devices.
- Restore power sources and verify safe operating conditions
- If additional work is needed, follow all previous procedures.

Subcontractor or Facility Representative designated to lock-out equipment and monitor personnel safety during the work process.

Name/Title
Received by: (Superintendent or Designee)

Date

Name/Title

Date

MOUNTAIN CASCADE CONFINED SPACE PROGRAM

§1502 and 1950 thru 1962

Introduction

This Confined Space Entry Program was created by Mountain Cascade, Inc. (MCI) to further its efforts to comply with Cal/OSHA Regulations, and help reduce employee exposures to injuries and illnesses. This Program establishes the minimum requirements for practices and procedures to protect employees engaged in construction activities at a jobsite with one or more Confined Spaces.

Where the Confined Spaces in Construction Regulation requirements (Cal/OSHA Sections 1950 thru 1962) apply to MCI operations, and there is another MCI operation covered by another provision that addresses a Confined Space hazard in another applicable Cal/OSHA Title 8 Regulation, MCI will comply with both the Confined Spaces in Construction Regulation requirements and the applicable provisions of the other applicable Cal/OSHA standard.

Definitions 1951

The following terms are defined by Cal/OSHA for the purposes of the Confined Spaces in Construction Regulation, and this Confined Space Program:

Acceptable Entry Conditions means the conditions that will exist in a Permit Confined Space, before an employee may enter that Confined Space, to ensure that employees can safely enter into, and safely work within, the Confined Space.

Attendant means an individual stationed outside one or more Permit Confined Spaces who assesses the status of authorized entrants and who will perform the duties specified in Section 1958. See “Duties of Attendants 1958” below.

Authorized Entrant means an employee who is authorized by the entry supervisor to enter a Permit Confined Space.

Barrier means a physical obstruction that blocks or limits access.

Blanking or Blinding means the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Competent Person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Confined Space is one in which all three of the following conditions exist simultaneously:

- (1) Is large enough and so configured that an employee can bodily enter it, and
- (2) Has limited or restricted means for entry or exit, and
- (3) Is not designed for continuous employee occupancy.

Control means the action taken to reduce the level of any hazard inside a Confined Space using engineering methods (for example, by ventilation), and then using these methods to maintain the reduced hazard level. Control also refers to the engineering methods used for this purpose. Personal protective equipment is not a control.

Controlling Contractor or Controlling Employer. The employer who was responsible, by contract or through actual practice, for safety and health conditions on the jobsite; i.e., the employer who had the authority for ensuring that the hazardous condition is corrected (the Controlling Employer).

NOTE: If the Controlling Contractor owns or manages the property, then it is both a Controlling Employer and a Host Employer.

Double Block and Bleed means the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Early-Warning System means the method used to alert Authorized Entrants and Attendants that an engulfment hazard may be developing. Examples of early-warning systems include, but are not limited to: alarms activated by remote sensors; and lookouts with equipment for immediately communicating with the Authorized Entrants and Attendants.

Emergency means any occurrence (including any failure of power, hazard control or monitoring equipment) or event, internal or external, to the Permit Confined Space that could endanger entrants.

Engulfment means the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, crushing, or suffocation.

Entry means the action by which any part of a person passes through an opening into a Permit-Required Confined Space. Entry includes ensuing work activities in that Confined Space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the Confined Space, whether or not such action is intentional or any work activities are actually performed in the Confined Space.

Entry Employer means any employer who decides that an employee it directs will enter a Permit Confined Space.

NOTE: An employer cannot avoid the duties of the standard merely by refusing to decide whether its employees will enter a Permit Confined Space, and the Division will consider the failure to so decide to be an implicit decision to allow employees to enter those Confined Spaces if they are working in the proximity of the Confined Space.

Entry Permit (Permit) means the written or printed document that is provided by the employer, who designated the Confined Space a Permit Confined Space, to allow and control entry into a Permit Confined Space and that contains the information specified in Section 1955. See "Permit Required Confined Space Entry Permit 1955" below.

Entry Rescue occurs when a rescue service enters a Permit Confined Space to rescue one or more employees.

Entry Supervisor means the qualified person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a Permit Confined Space

where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this standard.

NOTE: An Entry Supervisor also may serve as an Attendant or as an Authorized Entrant, as long as that person is trained and equipped as required by this standard for each role he or she fills. Also, the duties of Entry Supervisor may be passed from one individual to another during the course of an entry operation.

Hazard means a physical hazard or hazardous atmosphere. See definitions below.

Hazardous Atmosphere means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a Permit Confined Space), injury, or acute illness from one or more of the following causes:

- (1) Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
- (2) Airborne combustible dust at a concentration that meets or exceeds its LFL;

NOTE: This concentration may be approximated as a condition in which the combustible dust obscures vision at a distance of 5 feet (1.52 meters) or less.

- (3) Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
- (4) Atmospheric concentration of any substance for which a dose or a Permissible Exposure Limit (PEL) is published in Article 4 of the Construction Safety Orders and Group 16 of the General Industry Safety Orders;

NOTE: Gases or hazardous substances (chemicals) above the Permissible Exposure Limit (PEL) at MCI's jobsites may include, but are not limited to:

- a. Hydrogen Sulfide
- b. Methane
- c. Carbon Monoxide
- d. Carbon Dioxide

NOTE: An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this definition.

- (5) Any other atmospheric condition that is Immediately Dangerous to Life or Health (IDLH).

NOTE: For air contaminants for which the Division has not determined a dose or Permissible Exposure Limit, other sources of information, such as Safety Data Sheets that comply with the Hazard Communication Standard, Section 5194, published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

Host Employer means the employer that owns or manages the property where the construction work is taking place.

NOTE: If the owner of the property on which the construction activity occurs has contracted with an entity for the general management of that property, and has transferred to that entity the information specified in Section 1952(h)(1) (See "Permit Confined Space Entry Communication and Coordination 1952(h)" below.), Cal/OSHA will treat the contracted management entity as the Host Employer for as long as that entity manages the property.

Otherwise, Cal/OSHA will treat the owner of the property as the Host Employer. In no case will there be more than one Host Employer.

Hot Work means operations capable of providing a source of ignition (for example, riveting, welding, cutting, burning, and heating).

Immediately Dangerous to Life or Health (IDLH) means any condition that would interfere with an individual's ability to escape unaided from a Permit Confined Space and that poses a threat to life or that would cause irreversible adverse health effects.

NOTE: Some materials (hydrogen fluoride gas and cadmium vapor, for example) may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12-72 hours after exposure. The victim "feels normal" after recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be "Immediately" Dangerous to Life or Health.

Inerting means displacing the atmosphere in a Permit Confined Space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

NOTE: This procedure produces an IDLH oxygen-deficient atmosphere.

Isolate or Isolation means the process by which employees in a Confined Space are completely protected against the release of energy and material into the Confined Space, and contact with a physical hazard, by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; blocking or disconnecting all mechanical linkages; or placement of barriers to eliminate the potential for employee contact with a physical hazard.

Limited or Restricted means for entry or exit means a condition that has a potential to impede an employee's movement into or out of a Confined Space. Such conditions include, but are not limited to, trip hazards, poor illumination, slippery floors, inclining surfaces and ladders.

Line Breaking means the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

Lockout means 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.

Lower Flammable Limit or Lower Explosive Limit (LFL or LEL) means the minimum concentration of a substance in air needed for an ignition source to cause a flame or explosion.

Monitor or Monitoring means the process used to identify and evaluate the hazards after an Authorized Entrant enters the Confined Space. This is a process of checking for changes that is performed in a periodic or continuous manner after the completion of the initial testing or evaluation of that Confined Space.

Non-Entry Rescue occurs when a rescue service, usually the Attendant, retrieves employees in a Permit Confined Space without entering the Permit Confined Space.

Non-Permit Confined Space means a Confined Space that meets the definition of a Confined Space, but does not meet the requirements for a Permit-Required Confined Space, as defined in this list of definitions.

Oxygen Deficient Atmosphere means an atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen Enriched Atmosphere means an atmosphere containing more than 23.5 percent oxygen by volume.

Permit-Required Confined Space (Permit Confined Space) means a Confined Space that has one or more of the following characteristics:

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

NOTE: This definition applies to all MCI jobsites in which one or more of the above conditions exist.

Permit-Required Confined Space Program (Permit Confined Space Program) means the employer's overall Program for controlling, and, where appropriate, for protecting employees from, Permit Confined Space hazards and for regulating employee entry into Permit Confined Spaces.

Physical Hazard means an existing or potential hazard that can cause death or serious physical damage. Examples include, but are not limited to: explosives (as defined by Section 5237, definition of “explosive”); mechanical, electrical, hydraulic and pneumatic energy; radiation; temperature extremes; engulfment; noise; and inwardly converging surfaces. Physical Hazard also includes chemicals that can cause death or serious physical damage through skin or eye contact (rather than through inhalation).

Prohibited Condition means any condition in a Permit Confined Space that is not allowed by the permit during the period when entry is authorized. A hazardous atmosphere is a prohibited condition unless the employer can demonstrate that personal protective equipment (PPE) will provide effective protection for each employee in the Permit Confined Space and provides the appropriate PPE to each employee.

Qualified Person means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project.

Representative Permit Confined Space means a mock-up of a Confined Space that has entrance openings that are similar to, and is of similar size, configuration, and accessibility to, the Permit Confined Space that Authorized Entrants enter.

Rescue means retrieving, and providing medical assistance to, one or more employees who are in a Permit Confined Space.

Rescue Service means the personnel designated to rescue employees from Permit Confined Spaces.

Retrieval System means the equipment (including a retrieval line, chest or full body harness, wristlets or anklets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from Permit Confined Spaces.

Serious Physical Damage means an impairment or illness in which a body part is made functionally useless or is substantially reduced in efficiency. Such impairment or illness may be permanent or temporary and includes, but is not limited to, loss of consciousness, disorientation, or other immediate and substantial reduction in mental efficiency. Injuries involving such

impairment would usually require treatment by a physician or other licensed health-care professional.

Tagout means:

- (1) Placement of a tagout device on a circuit or equipment that has been de-energized, in accordance with an established procedure, to indicate that the circuit or equipment being controlled may not be operated until the tagout device is removed; and
- (2) The employer ensures that:
 - (A) tagout provides equivalent protection to lockout, or
 - (B) that lockout is infeasible and the employer has relieved, disconnected, restrained and otherwise rendered safe stored (residual) energy.

Test or Testing means the process by which the hazards that may confront entrants of a Permit Confined Space are identified and evaluated. Testing includes specifying the tests that are to be performed in the Permit Confined Space.

NOTE: Testing enables employers both to devise and implement adequate control measures for the protection of Authorized Entrants and to determine if acceptable entry conditions are present immediately prior to, and during, entry.

Ventilate or Ventilation means controlling a hazardous atmosphere using continuous forced-air mechanical systems that meet the requirements of Cal/OSHA Section 1530 – General Requirements for Mechanical Ventilation Systems.

General Requirements

Identification and Notification of Permit Required Confines Spaces on a Jobsite 1952(a) - (d)

- a) Before beginning work at any jobsite, Mountain Cascade (and each of its Subcontractors) (each Employer) will ensure that a Competent Person identifies all Confined Spaces in which one or more of its employees it directs may work, and identifies each Confined Space that is a Permit Confined Space, through consideration and evaluation of the elements of that Confined Space, including testing as necessary. (See Appendix IV “Confined Space Entry Permit” for Testing/Air Monitoring Requirements required to determine if the Space is a Non-Permit or a Permit Required Confined Space.)
- b) If the workplace contains one or more Permit Confined Spaces, Mountain Cascade (and each of its Subcontractors) (the Employer) who identifies, or who receives notice of, a Permit Confined Space will:
 1. Inform exposed employees by posting danger signs or by any other equally effective means, of the existence and location of, and the danger posed by, each Permit Confined Space; and a sign reading “DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER” or using other similar language that would satisfy the requirement for a sign.
 2. Inform, in a timely manner and in a manner other than posting (i.e., written document), its employees or employees' authorized representatives and the General Contractor and Mountain Cascade where applicable (the Controlling Contractor), of the existence and location of, and the danger posed by, each Permit Confined Space.

- c) Mountain Cascade (and each of its Subcontractors) (each Employer) who identifies, or receives notice of, a Permit Confined Space and has not authorized employees it directs to work in that Confined Space, will take effective measures to prevent those employees from entering that Permit Confined Space, in addition to complying with all other applicable requirements of the Confined Spaces in Construction Cal/OSHA standard.
- d) If Mountain Cascade (or any of its Subcontractors) (any Employer) decides that employees it directs will enter a Permit Confined Space, Mountain Cascade (or its Subcontractors) will have a Written Permit Confined Space Program that complies with Cal/OSHA Section 1953 “Permit Required Confined Space Program” implemented at the jobsite. The written Program will be made available prior to and during Entry Operations for inspection by employees and their authorized representatives.

Alternate Procedures for Entry into a Permit Required Confined Space 1952(e)

Mountain Cascade (or its Subcontractors) will use the Alternate Procedures specified in Section (2) below for entering a Permit Confined Space only under the conditions set forth in Section (1), as follows:

- (1) Mountain Cascade (or its Subcontractors) whose employees enter a Permit Confined Space need not comply with the Permit Required Confined Space Program (Cal/OSHA Sections 1953 through 1955 and Sections 1957 through 1960), except for the Pre-Entry Training Requirements (Cal/OSHA Section 1956), provided that all of the following conditions are met:
 - (A) Mountain Cascade (or its Subcontractors) can demonstrate that all physical hazards in the Confined Space are eliminated or isolated through engineering controls, so that the only hazard posed by the Permit Confined Space is an actual or potential hazardous atmosphere;
 - (B) Mountain Cascade (or its Subcontractors) can demonstrate that continuous forced air ventilation alone is sufficient to maintain that Permit Confined Space safe for entry, and that, in the event the ventilation system stops working, entrants can exit the Confined Space safely;
 - (C) Mountain Cascade (or its Subcontractors) develops monitoring and inspection data that supports the demonstrations required by (A) and (B) above;
 - (D) If an initial entry into the Permit Confined Space is necessary to obtain the data required by (C) above, the entry must be performed in compliance with the Permit Required Confined Space Program (Cal/OSHA Sections 1953 through 1960), and treated as if it is a Permit Required Confined Space;
 - (E) The determinations and supporting data required by (A), (B), and (C) above will be documented by Mountain Cascade (or its Subcontractors), and made available to each employee who enters the Permit Confined Space, or to that employee's authorized representative, under the requirements of this Section; **and**
 - (F) Entry into the Permit Confined Space under the requirements of this Section is performed in accordance with the requirements of Section (2) below.

NOTE: See “Procedures to Reclassify a Permit Required Confined Space to a Non-Permit Required Confined Space” below, after all hazards within the Confined Space have been eliminated.

- (2) The following requirements apply to entry into Permit Confined Spaces that meet the conditions set forth in Section (1) above:
- (A) Any conditions making it unsafe to remove an entrance cover will be eliminated before the cover is removed.
 - (B) When entrance covers are removed, the opening will be immediately guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that will protect each employee working in the Confined Space from foreign objects entering the Confined Space.
 - (C) Before a Mountain Cascade employee (or its Subcontractors' employee) enters the Confined Space, the internal atmosphere will be tested with a calibrated direct-reading instrument for oxygen content, flammable gases and vapors, and potential toxic air contaminants, in that order. Any employee who enters the Confined Space, or that employee's authorized representative, will be provided an opportunity to observe the pre-entry testing required by Section (1) above upon request.
 - (D) No hazardous atmosphere is permitted within the Confined Space whenever any employee is inside the Confined Space.
 - (E) Continuous forced air ventilation will be used, as follows:
 - 1. An employee will not enter the Confined Space until the forced air ventilation has eliminated any hazardous atmosphere;
 - 2. The forced air ventilation will be so directed as to ventilate the immediate areas where an employee is or will be present within the Confined Space and will continue ventilating the Confined Space until all employees have left the Confined Space;
 - 3. The air supply for the forced air ventilation will be from a clean source and will not increase the hazards in the Confined Space.
 - (F) The atmosphere within the Confined Space will be continuously monitored, unless Mountain Cascade (or its Subcontractors) (the Entry Employer) can demonstrate that equipment for continuous monitoring is not commercially available or periodic monitoring is sufficient. If continuous monitoring is used, Mountain Cascade (or its Subcontractors) will ensure that the monitoring equipment has an alarm that will notify all entrants if a specified atmospheric threshold is achieved, to ensure that entrants have adequate time to escape. If continuous monitoring is not used, periodic monitoring is required. All monitoring will ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere. Any employee who enters the Confined Space, or that employee's authorized representative, will be provided with an opportunity to observe the testing required by this Subsection (Section F) upon request.
 - (G) If a hazard is detected during entry:
 - 1. Each employee will leave the Confined Space immediately;
 - 2. The Confined Space will be evaluated to determine how the hazard developed; and
 - 3. Mountain Cascade (or its Subcontractors) will implement measures to protect its employees from the hazard before any subsequent entry takes place.

- (H) Mountain Cascade (or its Subcontractors) will ensure that a safe method of entering and exiting the Confined Space is implemented and followed. If a hoisting system is used, it will be designed and manufactured for personnel hoisting; however, a job-made hoisting system is permitted if it is approved for personnel hoisting by a Registered Professional Engineer, in writing, prior to use.
- (I) Mountain Cascade (or its Subcontractors) will verify that the Confined Space is safe for entry and that the pre-entry measures required by Section (2) (this Section) have been taken, through a written certification that contains the following:
- Date,
 - The location of the Confined Space, and
 - The signature of the person providing the certification.

The certification will be made before entry and will be made available to each employee entering the Confined Space or to that employee's authorized representative. (See Appendix IV "Confined Space Entry Permit" for the required documentation to be completed to downgrade a Permit Confined Space to a Non-Permit Confined Space.)

Changes in the Use or Configuration of a Non-Permit Confined Space 1952(f)

When there are changes in the use or configuration of a Non-Permit Confined Space that might increase the hazards to Entrants, or some indication that the initial evaluation of the Confined Space may not have been adequate, Mountain Cascade (or its Subcontractors) (each Entry Employer) will have a Competent Person reevaluate that Confined Space and, if necessary, reclassify it as a Permit-Required Confined Space.

Procedures to Reclassify a Permit Required Confined Space to a Non-Permit Required Confined Space 1952(g)

A Confined Space classified by Mountain Cascade (or its Subcontractors) as a Permit-Required Confined Space may only be reclassified as a Non-Permit Confined Space when a Competent Person of Mountain Cascade (or its Subcontractors) determines that all of the applicable requirements in this Section have been met:

- (1) If the Permit Confined Space poses no actual or potential atmospheric hazards and if all hazards within the Confined Space are eliminated or isolated without entry into the Confined Space (unless Mountain Cascade or its Subcontractors can demonstrate that doing so without entry is infeasible), the Permit Confined Space will be reclassified as a Non-Permit Confined Space for as long as the non-atmospheric hazards remain eliminated or isolated;
- (2) Mountain Cascade (or its Subcontractors) (the Entry Employer) will eliminate or isolate the hazards without entering the Confined Space, unless it can demonstrate that this is infeasible. If it is necessary to enter the Permit Confined Space to eliminate or isolate hazards, such entry will be performed under Cal/OSHA Sections 1953 through 1960 – Permit Required Confined Space Program. If testing and inspection during that entry demonstrate that the hazards within the Permit Confined Space have been eliminated or isolated, the Permit Confined Space will be reclassified as a Non-Permit Confined Space for as long as the hazards remain eliminated or isolated;

NOTE: Control of atmospheric hazards through forced air ventilation does not constitute elimination or isolation of the hazards. Section 1952(e) – Alternate Procedures for Entry into a Permit Required Confined Space, above covers Permit Confined Space entry where Mountain Cascade (or its Subcontractors) can demonstrate that forced air ventilation alone will control all hazards in the Confined Space.

(3) Mountain Cascade (or its Subcontractors) (the Entry Employer) will document the basis for determining that all hazards in a Permit Confined Space have been eliminated or isolated, through a written certification that contains:

- The Date,
- The Location of the Confined Space, and
- The Signature of the person making the determination.

(See Appendix IV “Confined Space Entry Permit” for the required documentation to be completed to downgrade a Permit Confined Space to a Non-Permit Confined Space.)

The certification will be made available to each employee entering the Confined Space or to that employee's authorized representative; and

(4) If hazards arise within a Permit Confined Space that has been reclassified as a Non-Permit Confined Space under this Section, each employee in the Confined Space will exit the Confined Space immediately. Mountain Cascade (or its Subcontractors) (the Entry Employer) will then reevaluate the Confined Space and reclassify it as a Permit Confined Space as appropriate in accordance with all other applicable provisions of this Program and the Cal/OSHA Confined Spaces in Construction standard.

Permit Confined Space Entry Communication and Coordination 1952(h)

(1) Before entry operations begin, the Owner (the Host Employer) will provide the following information, if it has it, to the General Contractor and/or Mountain Cascade (the Controlling Contractor):

- (A) The location of each known Permit Confined Space;
- (B) The hazards or potential hazards in each Confined Space or the reason it is a Permit Confined Space; and
- (C) Any precautions that the Owner (the Host Employer) or any previous Controlling Contractor or Entry Employer implemented for the protection of employees in the Permit Confined Space.

(2) Before entry operations begin, the General Contractor and/or Mountain Cascade (the Controlling Contractor) will:

- (A) Obtain the Owner's (the Host Employer's) information about the Permit Confined Space hazards and previous entry operations; and
- (B) Provide the following information to Mountain Cascade (and its Subcontractors) entering a Permit Confined Space and any other entity at the jobsite whose activities could foreseeably result in a hazard in the Permit Confined Space:
 1. The information received from the Owner (the Host Employer);
 2. Any additional information the General Contractor and/or Mountain Cascade (the Controlling Contractor) has about the subjects listed in Section (1) above; and

3. The precautions that the Owner (the Host Employer), the General Contractor and/or Mountain Cascade (the Controlling Contractor), or other prior Entry Employers (Mountain Cascade or its Subcontractors, when applicable) implemented for the protection of employees in the Permit Confined Spaces.
- (3) Before entry operations begin, Mountain Cascade (or its Subcontractors) (each Entry Employer) will:
 - (A) Obtain all of the General Contractor's and/or Mountain Cascade's (the Controlling Contractor's) information regarding Permit Confined Space hazards and entry operations; and
 - (B) Inform the General Contractor and/or Mountain Cascade (the Controlling Contractor) of the Permit Confined Space Program that Mountain Cascade (or its Subcontractors) (the Entry Employer) will follow, including any hazards likely to be confronted or created in each Permit Confined Space.
- (4) The General Contractor and/or Mountain Cascade (the Controlling Employer) and Mountain Cascade (or its Subcontractors) (the Entry Employer(s)) will coordinate entry operations when:
 - (A) More than one employer performs Permit Confined Space entry at the same time; **or**
 - (B) Permit Confined Space entry is performed at the same time that any activities that could foreseeably result in a hazard in the Permit Confined Space are performed.
- (5) After entry operations are completed:
 - (A) The General Contractor and/or Mountain Cascade (the Controlling Contractor) will debrief Mountain Cascade (or its Subcontractors) (each employer) that entered a Permit Confined Space regarding the Permit Confined Space Program followed and any hazards confronted or created in the Permit Confined Space(s) during entry operations;
 - (B) Mountain Cascade (or its Subcontractors) (the Entry Employer) will inform the General Contractor and/or Mountain Cascade (the Controlling Contractor) in a timely manner of the Permit Confined Space Program followed and of any hazards confronted or created in the Permit Confined Space(s) during entry operations; **and**
 - (C) The General Contractor and/or Mountain Cascade (the Controlling Contractor) will apprise the Owner (the Host Employer) of the information exchanged with Mountain Cascade (or its Subcontractors) (the Entry entities) required in this Subsection.

NOTE: Unless the Owner (Host Employer) or General Contractor and/or Mountain Cascade (Controlling Contractor) has or will have employees in a Confined Space, it is not required to enter any Confined Space to collect the information specified in this Section. Only employers entering a Confined Space are required to collect the information specified in this Section.

No Controlling Contractor Present at the Worksite 1952(i)

If there is no Controlling Contractor present at the jobsite, the requirements for, and role of, Controlling Contractors under (Section 1952(a) thru (h)) – General Requirements, above will be fulfilled by the Owner (the Host Employer) or Mountain Cascade who arranges to have employees of Mountain Cascade's Subcontractors (another employer) perform work that involves Permit Confined Space entry.

Communication Requirements

On all Mountain Cascade jobsites with Confined Spaces, you must have some way to communicate with the employees in the Confined Space and it must be tested prior to beginning your work. Communication options include light relays, horns, radios, walkie talkies, long cord headsets, and verbal calls.

Permit-Required Confined Space Program 1953

The following requirements are contained in this, Mountain Cascade's, written Permit-Required Confined Space Program. And, they will be followed by Mountain Cascade (and its Subcontractors) when preparing to work and working in a Permit required Confined Space.

Mountain Cascade (and its Subcontractors) (the Entry employer) will:

- (1) Implement the measures necessary to prevent unauthorized entry;
- (2) Identify and evaluate the hazards of Permit Confined Spaces before employees enter them;
- (3) Implement the developed written means, procedures, and practices necessary for safe Permit Confined Space entry operations, which include, but are not limited to, the following:
 - (A) Specified acceptable entry conditions;
 - (B) Provide each authorized Entrant or that employee's authorized representative with the opportunity to observe any monitoring or testing of permit Confined Spaces, where requested;
 - (C) Procedures to isolate the Permit Confined Space and physical hazard(s) within the Confined Space;
 - (D) Procedures and equipment necessary to purge, inert, flush, or ventilate the Permit Confined Space as necessary to eliminate or control atmospheric hazards;

NOTE: When Mountain Cascade (or its Subcontractor) is unable to reduce the atmosphere below 10 percent LFL, Mountain Cascade (or its Subcontractor) will only enter the Confined Space if:

- It inerts the Confined Space so as to render the entire atmosphere in the Confined Space non-combustible, and
 - Employees use PPE to address any other atmospheric hazards (such as oxygen deficiency), and
 - It eliminates or isolates all physical hazards in the Confined Space.
- (E) Method to determine that, in the event the ventilation system stops working, the monitoring procedures will detect an increase in atmospheric hazard levels in sufficient time for the Entrants to safely exit the Permit Confined Space;
 - (F) Provide pedestrian, vehicle, or other barriers as necessary to protect Entrants from external hazards;
 - (G) Method and equipment necessary to verify that conditions in the Permit Confined Space are acceptable for entry throughout the duration of an Authorized Entry. And ensure that employees are not allowed to enter into, or remain in, a Permit Confined Space with a hazardous atmosphere unless Mountain Cascade (or its Subcontractors) can demonstrate that personal protective equipment (PPE) will provide effective

- protection for each employee in the Permit Confined Space, including providing the appropriate PPE to each employee; and
- (H) Procedures and equipment necessary to eliminate any conditions (for example, high pressure) that could make it unsafe to remove an entrance cover.
- (4) Mountain Cascade (and its Subcontractors) provides the following equipment at no cost to each employee, maintains equipment properly, and ensures that each employee uses equipment properly, as follows:
- (A) Testing and monitoring equipment needed to comply with Subsection (5) below;
 - (B) Ventilating equipment needed to obtain acceptable entry conditions;
 - (C) Communications equipment necessary for compliance with Cal/OSHA Sections 1957(c) and 1958(f) – Duties of Authorized Entrants and Attendants, including any necessary electronic communication equipment for Attendants assessing Entrants' status in multiple Confined Spaces;
 - (D) Personal protective equipment where feasible engineering and work-practice controls do not adequately protect employees;
 - (E) Lighting equipment that meets the minimum illumination requirements in Cal/OSHA Section 1523 – Illumination, that is approved for the ignitable or combustible properties of the specific gas, vapor, dust, or fiber where present, and is sufficient to enable employees to see well enough to work safely and to exit the Confined Space quickly in an emergency;
 - (F) Barriers and shields, as required in Subsection (3)(F) above;
 - (G) Equipment, such as ladders, for safe ingress and egress by Authorized Entrants;
 - (H) Rescue and emergency equipment, to comply with Subsection (9) below, except to the extent that the equipment is provided by Rescue Services; and
 - (I) Any other equipment necessary for safe entry into, safe exit from, and rescue from, Permit Confined Spaces, as required by the jobsite and/or Confined Space.
- (5) Permit Confined Space conditions will be evaluated when entry operations are conducted, as follows:
- (A) Test conditions in the Permit Confined Space to determine if acceptable entry conditions exist before changes to the Confined Space's natural ventilation are made, and before entry is authorized to begin. Except that, if Mountain Cascade (or its Subcontractors) demonstrates that isolation of the Confined Space is infeasible because the Confined Space is large or is part of a continuous system (such as a sewer), then Mountain Cascade (or its Subcontractors) will:
 1. Perform Pre-Entry Testing to the extent feasible before entry is authorized; and,
 2. If entry is authorized, continuously monitor entry conditions in the areas where Authorized Entrants are working; and,
 3. Provide an early-warning system that continuously monitors for non-isolated engulfment hazards. The system will alert Authorized Entrants and Attendants in sufficient time for the Authorized Entrants to safely exit the Confined Space.
 - (B) Continuously monitor atmospheric hazards;

- (C) Test for atmospheric hazards in the following order: First for oxygen, then for combustible gases and vapors, and then for toxic gases and vapors;
 - (D) Provide each Authorized Entrant or that employee's authorized representative with an opportunity to observe the pre-entry and any subsequent testing or monitoring of Permit Confined Spaces, when requested;
 - (E) Re-evaluate the Permit Confined Space in the presence of any Authorized Entrant or that employee's authorized representative who requests that Mountain Cascade (or its Subcontractors) conduct such reevaluation, because there is some indication that the evaluation of that Confined Space may not have been adequate; and
 - (F) Immediately provide each Authorized Entrant or that employee's authorized representative with the results of any testing conducted in accordance with this Section.
- (6) Provide and have at least one Attendant in place outside the Permit Confined Space into which entry is authorized for the duration of entry operations;
- (A) Attendants will be assigned to no more than one Permit Confined Space.
 - (B) Attendants can be stationed at any location outside the Permit Confined Space, as long as the duties described in Cal/OSHA Section 1958 – Duties of Attendants, can be effectively performed for the Permit Confined Space to which the Attendant is assigned.
- (7) No multiple Confined Spaces will be assigned to a single Attendant;
- (8) For each job with a Permit Confined Space, Mountain Cascade (or its Subcontractors) has designated employees who have an active role (including, but not limited to, Authorized Entrants, Attendants, Entry Supervisors, and persons who test or monitor the atmosphere) for Entry Operations, has identified the duties of each employee, and has provided each employee with documented training as required by Cal/OSHA Section 1956 – Pre-Entry Training; (See Appendix IV, Page 1)
- (9) Mountain Cascade conducts a Pre-Construction meeting for each project. For those projects with Permit Confine space Entry with hazards that may require entry rescue Mountain Cascade contracts with either the local Fire Department or entry emergency rescue services. Details of the local fire department and or entry rescue service for each project are contained in the project specific Health & Safety Plan (HASP).
- (10) Mountain Cascade has developed and implemented a system for the preparation issuances, use, and cancellation of Entry Permit as required by the Cal/OSHA standard, including the safe termination of entry operations under both planned and emergency conditions. See Appendix IV for the confine space permit and procedures required for completing the aforementioned process.
- (11) Mountain Cascade's procedures to coordinate entry operations, in consultation with the Controlling Contractor (and Mountain Cascade, where applicable), when employees of more than one employer (Mountain Cascade and/or its Subcontractors) are working simultaneously in a Permit Confined Space or elsewhere on the jobsite where their activities could, either alone or in conjunction with the activities within a Permit Confined Space, foreseeably result in a hazard within the Confined Space, so that employees of one employer do not endanger the employees of any other employer is part of the HASP completion process. Copies of the HASP are provided to the Controlling Contractor and any Mountain Cascade Sub- Contractors prior to start of project.

In addition, coordination meeting(s) are held with Controlling Contractor and Subcontractor(s) as required.

- (12) Mountain Cascade's procedures (such as closing off a Permit Confined Space and canceling the Permit) necessary for concluding the entry after entry operations have been completed are contained in Appendix IV Confine Space Entry Permit and in the HASP for each project.
- (13) Mountain Cascade will review the Entry Operations part of the Program when the measures taken under the Permit Confined Space Program are not adequate to protect employees, and revise the Program to correct the deficiencies found before subsequent entries are authorized;

Examples of circumstances requiring the review of the Permit Confined Space Program include, but are not limited to:

- Any unauthorized entry of a Permit Confined Space;
 - The detection of a Permit Confined Space hazard not covered by the Permit;
 - The detection of a condition prohibited by the Permit;
 - The occurrence of an injury or near-miss during entry;
 - A change in the use or configuration of a Permit Confined Space; and
 - An employee complaint about the effectiveness of the Program.
- (14) Mountain Cascade will review the Permit Confined Space Program, using the canceled Permits retained, per Cal/OSHA Section 1954(f) – Pre-Entry Permitting Process, within 1 year after each entry and revise the Program as necessary to ensure that employees participating in entry operations are protected from Permit Confined Space hazards.

For efficient use of time, Mountain Cascade will perform a single annual review covering all entries performed during a 12-month period. If no entry is performed during a 12-month period, then no review is required to be performed.

Pre-Entry Permitting Process 1954

- (a) Before entry is authorized, Mountain Cascade (or its Subcontractors) (each Entry Employer) will document the completion of measures required by Cal/OSHA Subsection 1953(3) in the "Permit Required Confined Space Program" above, by preparing an Entry Permit. (See Appendix IV for the "Confined Space Entry Permit.")
- (b) Before entry begins, the Entry Supervisor identified on the Permit, will sign the Entry Permit to authorize entry.
- (c) The completed Permit will be made available at the time of entry to all Authorized Entrants or their authorized representatives, by posting it at the entry portal or by any other equally effective means, so that the Entrants can confirm that Pre-Entry preparations have been completed.
- (d) The duration of the Permit will not exceed the time required to complete the assigned task or job identified on the Permit.
- (e) The Entry Supervisor will terminate entry and take the following action when any of the following apply:

- (1) Cancel the Entry Permit when the entry operations covered by the Entry Permit have been completed; **or**
 - (2) Suspend or cancel the Entry Permit and fully reassess the Permit Confined Space before allowing re-entry when a condition that is not allowed under the Entry Permit arises in or near the Permit Confined Space **and** that condition is temporary in nature and does not change the configuration of the Confined Space or create any new hazards within it; **and**
 - (3) Cancel the Entry Permit when a condition that is not allowed under the Entry Permit arises in or near the Permit Confined Space **and** that condition is **not** covered by (2) above.
- (f) Mountain Cascade (or its Subcontractors) (each Entry Employer) will retain each canceled Entry Permit for at least one (1) year to facilitate the review of the Permit-Required Confined Space Program required by Cal/OSHA Subsection 1953(14) in the “Permit-Required Confined Space Program” Section above. Any problems encountered during an Entry Operation will be noted on the pertinent Permit so that appropriate revisions to the Permit Confined Space Program can be made.

Permit Required Confined Space Entry Permit 1955

Mountain Cascade’s Entry Permit (see Appendix IV), that documents compliance with Cal/OSHA regulations and authorizes entry to a Permit Confined Space, contains and identifies all of the following:

- (1) The Permit Confined Space to be entered;
- (2) The purpose of the entry;
- (3) The date and the authorized duration of the Entry Permit;
- (4) The Authorized Entrants within the Permit Confined Space, by name or by such other means (for example, through the use of rosters or tracking systems) that will enable the Attendant to determine quickly and accurately, for the duration of the Permit, which Authorized Entrants are inside the Permit Confined Space;
- (5) Means of detecting an increase in atmospheric hazard levels in the event the ventilation system stops working. (Continuous air monitoring will be used, when ventilation is used.);
- (6) Each person, by name, currently serving as an Attendant;
- (7) The individual, by name, currently serving as Entry Supervisor, and the signature or initials of each Entry Supervisor who authorizes entry;
- (8) The hazards of the Permit Confined Space to be entered;
- (9) The measures used to isolate the Permit Confined Space and to eliminate or control Permit Confined Space hazards before entry;

NOTE: Measures that will be taken include, but are not limited to, the lockout or tagging of equipment and procedures for purging, inerting, ventilating, and flushing Permit Confined Spaces.

- (10) The acceptable entry conditions;
- (11) The results of tests and monitoring performed, in the order listed on the Air Monitoring Log Form – Appendix III, per Cal/OSHA requirements in Subsection 1953(5)(C) –

Permit-Required Confined Space Program, including the names of the testers and the date(s) and time(s) when the tests were performed;

- (12) The rescue and emergency services that can be summoned, including the equipment to use and the numbers to call, for summoning those services; (See Appendix III)
- (13) The communication procedures used by Authorized Entrants and Attendants to maintain contact during the entry;
- (14) Equipment, including personal protective equipment, testing equipment, communications equipment, alarm systems, and rescue equipment, to be provided for protection of employees and to meet Cal/OSHA Confined Spaces in Construction regulation;
- (15) Any other information necessary, given the circumstances of the particular Confined Space, to ensure employee safety; and
- (16) Any additional permits, such as for Hot Work, that have been issued to authorize work in the Permit Confined Space.

Prior to entering a Confined Space, the “Confined Space Entry Permit” (See Appendix IV) must be completed by both the Foreman and Superintendent, and any other supervisory personnel in charge of entering the Confined Space.

Pre-Entry Training 1956

- (a) Mountain Cascade will train their employees, and each Subcontractor will train each of their employees, prior to any employee performing any Confined Space work, per the Cal/OSHA Confined Spaces in Construction regulation. Training is provided at no cost to the employee. Mountain Cascade (and its Subcontractors) will ensure that each employee performing Confined Space work possesses the understanding, knowledge, and skills necessary for the safe performance of their duties assigned under this Confined Space Program. Training will cover and ensure that each employee understands the hazards in Permit Confined Spaces, as well as the hazards in any Confined Space, and the methods used to isolate, control or in other ways protect the employee from these hazards. And, for those employees not authorized to perform Entry Rescues, training will cover the dangers of attempting such rescues.
- (b) Training, as required by this Confined Space Program and Cal/OSHA’s Confined Spaces in Construction regulation, will be provided to each affected employee as follows:
 - (1) In both a language and vocabulary that the employee can understand;
 - (2) Before the employee is first assigned any duties under the Confined Space Program;
 - (3) Before there is a change in assigned duties;
 - (4) Whenever there is a change in Permit Confined Space Entry Operations that presents a hazard about which the employee has not previously been trained; and
 - (5) Whenever there is any evidence of a deviation from the Permit Confined Space Entry Procedures in this Confined Space Program, or there are observed inadequacies in the employee's knowledge or use of the Entry Procedures.
- (c) Mountain Cascade has established employee proficiency measurements for employee Confined Space training, as part of its Confined Space Program, as required by the Cal/OSHA Confined Spaces in Construction regulation. And, Mountain Cascade will

implement new or revised procedures, as necessary, when operations change, to protect employees and to maintain its Confined Space Program up to date, and to meet the Cal/OSHA Confined Spaces in Construction regulation.

- (d) Mountain Cascade (and its Subcontractors) will maintain training records to show that the training required by this Confined Space Program and Cal/OSHA's Cal/OSHA Confined Spaces in Construction regulation has been accomplished. The training records contain:
- Each employee's name,
 - The name of the trainer(s), and
 - The date(s) of training.

Training documentation will be available for inspection by employees and their authorized representatives, for the period of time the employee is employed by Mountain Cascade (or employed by the Subcontractors).

Specific Confined Space Entry Training

You may not enter or be a member of an Entry Team unless you have been trained. Training may be informal, formal, long, short, written, planned or unplanned, so long as you know the hazards, know your job and know the rescue plan, and the training is documented. (See Appendix I for the "Confined Space Guide" to assist in evaluating Confined Space for Entry/Non-Entry criteria.)

- a. A Foreman and/or anyone left in charge of a Confined Space operation must be a Competent Person. All Leadmen, Foremen and Superintendents are required to be Confined Space Entry Supervisor trained prior to performing or supervising any Confined Space work. This training will be formal and documented. (Wherever the titles "Leadman, Stand-by, Foreman, Superintendent, and Supervisor are used in this Program, they are meant to be individuals trained as Entry Supervisors, at a minimum.)
- b. Employees entering a Confined Space must know how to evacuate, the signs of contamination, the general hazards of the job and how to use equipment issued to them.
- c. The Foreman and the Stand-by must have been trained in CPR and First Aid. Employees wearing respiratory equipment must have WRITTEN documentation verifying training compliance. They must have:
 - ✓ Doctor approval letter, including completion of "Respirator Medical Evaluation Questionnaire"
 - ✓ Fit Test
 - ✓ Fit Test Documentation

Refer to the Respiratory Protection Program for specifics on how to comply with these requirements.

- d. Entry Team is to be identified so that each person clearly understands his/her role.
 - Supervisor (Must remain within sight or call of Stand-by)
 - Attendant (Attendant also performs Stand-by duties for rescue, if rescue is required.)
 - Entrants
 - Rescue personnel

General Hazards Identification Procedures

An air monitoring device will be used to monitor all Confined Spaces prior to entry and re-entry, and while the Confined Space is occupied. Record all air monitoring readings using the “Air Monitoring Log” (See Appendix III).

- a. No source of ignition will be introduced until it has been ensured, via a gas detector reading, that the Confined Space is free of a flammable hazard. (Sources include but are not limited to: Cameras, cigarettes, radios, flame, sparkable tools, flash lights, combustible engines, electrical equipment.)
- b. Entry into a Confined Space will always be done from the side, unless a top opening is the only option.
- c. Adequate ventilation must be ensured when oxygen consuming equipment is being use within an Enclosed Space or Confined Space. (Examples: Salamanders, torches, furnaces, oxygen-acetylene carts, welding, etc.)
- d. Where corrosives or other hazardous substances are present, which can be absorbed through the skin and may become a hazard in the Confined Space, proper PPE will be provided and must be worn.

Pre-Entry Procedures

1. Any conditions making it unsafe to remove an entrance cover will be eliminated before the cover is removed.
2. When the entrance cover(s) is (are) removed, each opening will be promptly guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening, and that will protect each employee working in the Confined Space from foreign objects entering the Confined Space.
3. Before any employee enters the Confined Space, the internal atmosphere will be tested, with a calibrated direct-reading instrument, for the following conditions in the order given:
 - a. Oxygen content,
 - b. Flammable gases and vapors, and
 - c. Potential toxic air contaminants.
4. Initially sample the Confined Space on different levels prior to entry, and then continuously monitor the Confined Space while Authorized Entrants are in the Confined Space.
 - a. Record readings taken in each Confined Space a minimum of 4 times daily on the Air Monitoring Log, as follows: 1) Prior to opening the Confined Space through air holes, 2) Immediately after opening the door, manhole lid, cover, or other enclosure prior to work, 3) After lunch and 4) End of shift. Maintain the Air Monitoring Log on site until the end of the job. Additional readings will be logged as necessary.
 - b. All Authorized Entrants must check the Air Monitoring Log personally, prior to entry, to verify the safety of the Confined Space.
 - c. Do not use a gas detector if it's defective or has an expired calibration date. Per manufacturer requirements, calibrations of each instrument must be performed every 3 months. Calibration dates will be logged on the back of each device. In addition, per manufacturer's recommendation, a “bump” test will be performed on each gas detector prior to each day's use.
 - d. Air sample the place you enter AND air sample the place where work is being performed. Log the highest reading after sampling a minimum of three times.

5. Ventilate hazardous atmospheres to reduce the hazards and prevent high concentrations from collecting. Ventilate until you are within the legal limits for all “Accessible Entry Conditions” stated on Page 1 of the Confined Space Entry Permit. (See Appendix IV.)
6. Plug or flush lines, if practical, to prevent Confined Space contamination. Mains or laterals that feed the work area, which can create an engulfment hazard, will have plugs or permanent lock-outs. In all instances, the Confined Space will be removed from service and completely protected against the release of energy and material into the Confined Space by such means as: Blanking or blinding; Misaligning or removing sections of lines, pipes, or ducts; Double block and bleed system; Lockout or tagout of all sources of energy; or Blocking or disconnecting all mechanical linkages.
7. Equipment required for Confined Spaces are:
 - a. Gas monitor (sniffer) and Air Monitoring Log. (See Appendix III.)
 - b. Tripod, rescue winch, and harness set-up. (Rescue winch will be hooked to the employee while going into and out of the Confined Space.) A work winch will **not** be used for this particular job. Hydraulic machinery will lower down material/tools as needed. (**Contact your Supervisor if you want to deviate from this requirement, as a written alternative, equally effective Plan must be in placed prior to entering the Confined Space.**)
 - c. A minimum of one (1) SCBA 30 minute rescue air tank will be provided and be readily available for each employee entering the Confined Space, by MCI.
 - d. Ladders and blowers must be on the job, as of the start of the job. The Foreman will determine the feasibility of using this equipment.

OPTIONAL EQUIPMENT CHOICES E & F AVAILABLE UPON FOREMAN'S REQUEST:

- e. Escape Air. (Required if worker's winch line is not long enough, or when tripod set-up is not feasible. (**Need Supervisor's approval.**)
 - f. Man baskets.
 - g. Respiratory equipment determined by the hazards.
 - h. Supplied Air equipment.
8. Survey the area to prevent contamination or hazards from affecting the operation. Monitor traffic control, engulfment issues, barricades, power lines, underground utilities, etc.
 9. Conduct a final check prior to entry, to verify the above issues with your Supervisor, at the beginning of each job, phase or significant condition change. A check is not necessary prior to each day, unless circumstances that alter the original plan are discovered.

Duties of Authorized Entrants 1957

Authorized Entrants will:

- (1) Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- (2) Properly use equipment required by Cal/OSHA Subsection 1953(4) – Permit-Required Confined Space Program.

- (3) Communicate with the Attendant as necessary to enable the Attendant to assess Entrant status and to enable the Attendant to alert Entrants of the need to evacuate the Confined Space, as required by Cal/OSHA Subsection 1958(6) – Duties of Attendants.
- (4) Alert the Attendant whenever:
 - (A) The Entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
 - (B) The Entrant detects a prohibited condition.
- (5) Exit from the Permit Confined Space as quickly as possible whenever:
 - (A) An order to evacuate is given by the Attendant or the Entry Supervisor.
 - (B) The Entrant, Attendant or Entry Supervisor recognizes any warning sign or symptom of exposure to a dangerous situation.
 - (C) The Entrant detects a prohibited condition.
 - (D) An evacuation alarm is activated.

Duties of Attendants 1958

The Foreman will ensure that each Attendant:

- (1) Knows and understands the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- (2) Is aware of possible behavioral effects of hazard exposure in Authorized Entrants.
- (3) Continuously maintains an accurate count of Authorized Entrants in the Permit Confined Space.
- (4) Remains outside the Permit Confined Space during entry operations until relieved by another Attendant.
NOTE: Once an Attendant has been relieved by another Attendant, the relieved Attendant cannot enter a Permit Confined Space to attempt a rescue.
- (5) Communicates with Authorized Entrants as necessary to monitor entrant status and to alert Entrants of the need to evacuate the Confined Space.
- (6) Monitors activities inside and outside the Confined Space to determine if it is safe for Entrants to remain in the Confined Space, and orders the Authorized Entrants to evacuate the Permit Confined Space immediately under any of the following conditions:
 - (A) If the Entrant, Attendant or Entry Supervisor detects a prohibited condition.
 - (B) If the Attendant detects the behavioral effects of hazard exposure in an Authorized Entrant.
 - (C) If the Attendant detects a situation outside the Confined Space that could endanger the Authorized Entrants.
 - (D) If the Attendant cannot effectively and safely perform all the duties required.
- (7) Summon rescue and other emergency services as soon as the Attendant determines that Authorized Entrants may need assistance to escape from Permit Confined Space hazards.
- (8) Takes the following actions when unauthorized persons approach or enter a Permit Confined Space while entry is underway:
 - (A) Warns unauthorized persons to stay away from the Permit Confined Space.

- (B) Warns unauthorized persons that they must exit immediately if they have entered the Permit Confined Space; and
 - (C) Informs the Authorized Entrants and the Entry Supervisor if unauthorized persons have entered the Permit Confined Space.
- (9) Performs non-entry rescues as specified by Mountain Cascade’s written rescue procedures.
- (10) Performs no duties that might interfere with the Attendant's primary duty to monitor and protect the Authorized Entrants.

Duties of Entry Supervisors 1059

The Site Supervisor/Superintendent will ensure that each Entry Supervisor/Foreman:

- (1) Knows and understands the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- (2) Verifies, by checking, that the appropriate entries have been made on the Confined Space Permit, that all tests specified by the Permit have been conducted, and that all procedures and equipment specified by the Permit are in place before signing the Permit and allowing entry to begin.
- (3) Terminates the entry and cancels or suspends the Confined Space Permit, per the requirements in Cal/OSHA Subsection 1954(e) – Pre-Entry Permitting Process, as follows:
 - (1) Cancel the Entry Permit when the entry operations covered by the Entry Permit have been completed; or
 - (2) Suspend or cancel the Entry Permit and fully reassess the Permit Confined Space before allowing re-entry when a condition that is not allowed under the Entry Permit arises in or near the Permit Confined Space and that condition is temporary in nature and does not change the configuration of the Confined Space or create any new hazards within it; and
 - (3) Cancel the Entry Permit when a condition that is not allowed under the Entry Permit arises in or near the Permit Confined Space and that condition is not covered by Subsection (2) above.
- (4) Verifies that Rescue Services are available and that the means for summoning them are operable. And, that the Entry Supervisor and Foreman are notified as soon as the Rescue Services become unavailable.
- (5) Removes unauthorized individuals who enter or who attempt to enter the Permit Confined Space.
- (6) Determines, whenever responsibility for a Permit Confined Space Entry Operation is transferred, and at intervals dictated by the hazards and operations performed within the Confined Space, that Entry Operations remain consistent within the terms of the Entry Permit and that acceptable entry conditions are maintained.

Rescue and Emergency Services 1960

- (a) When Mountain Cascade designates rescue and emergency services, the following evaluation criteria is used to select the rescue and emergency services to be used, and the evaluation is documented:

- (1) The Rescuer's ability to respond to a rescue summons in a timely manner, considering the hazard(s) identified. What will be considered timely will vary according to the specific hazards involved in each entry. For example, Cal/OSHA Section 5144 – Respiratory Protection requires that employers provide a standby person or persons capable of immediate action to rescue employee(s) wearing respiratory protection while in work areas defined as IDLH atmospheres.
- (2) The Rescue Service's ability, in terms of proficiency with rescue-related tasks and equipment, to function appropriately while rescuing entrants from the particular Permit Confined Space or types of Permit Confined Spaces identified.
- (3) Additional Rescue Service selection criteria:
 - (A) Has the capability to reach the victim(s) within a time frame that is appropriate for the Permit Confined Space hazard(s) identified;
 - (B) Is equipped for, and proficient in, performing the needed rescue services;
 - (C) Agrees to notify Mountain Cascade immediately in the event that the Rescue Service becomes unavailable

In addition, upon selection of a rescue team or service, Mountain Cascade will:

- (4) Inform the rescue team or service of the hazards they may confront when called on to perform rescue at the jobsite; and
 - (5) Provide the rescue team or service with access to all Permit Confined Spaces from which rescue may be necessary, so that the rescue team or service can develop appropriate rescue plans and practice rescue operations.
- (b) Where Mountain Cascade provides their own Permit Confined Space rescue and/or emergency services for a jobsite, Mountain Cascade has implemented the following measures, at no cost to their employees:
- (1) Provided all affected employees with the personal protective equipment (PPE) needed to conduct Permit Confined Space rescues safely, and trained all affected employees in the use of that PPE.
 - (2) Trained all affected employees in their assigned rescue duties, including demonstrating that they can perform their rescue duties. And, trained all affected employees as Authorized Entrants.
 - (3) Trained all affected employees in basic First-Aid and cardiopulmonary resuscitation (CPR). And ensured that at least one rescue team or service member holds a current certification in basic first aid and CPR, and is available at the jobsite.
 - (4) Mountain Cascade practices and performs non-entry rescue using its own employees. Otherwise if entry rescue is required then Mountain Cascade contracts with an entry rescue service.
- (c) For all Mountain Cascade jobsites, non-entry rescue is required, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. Mountain Cascade (or its Subcontractors) will designate an Entry Rescue Service whenever non-entry rescue is not selected. And, whenever non-entry rescue is selected, Mountain Cascade (or its Subcontractors) will ensure that retrieval systems or methods are used whenever an Authorized Entrant enters a

Permit Confined Space, **and** will confirm, prior to entry, that emergency assistance would be available in the event that non-entry rescue fails.

The Retrieval System will meet the following requirements:

- (1) Each Authorized Entrant will use a chest or full body harness, with a retrieval line attached at the center of the Entrant's back near shoulder level, above the entrant's head, or at another point which Mountain Cascade (or its Subcontractors) can establish, that presents a profile small enough for the successful removal of the Entrant. Wristlets or anklets may be used in lieu of the chest or full body harness where Mountain Cascade (or its Subcontractors) 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 or anklets is the safest and most effective alternative.
 - (2) The other end of the retrieval line will be attached to a mechanical device or fixed point outside the Permit Confined Space in such a manner that rescue can begin as soon as the Rescuer becomes aware that rescue is necessary. A mechanical device will be available to retrieve personnel from vertical type Permit Confined Spaces more than 5 feet (1.52 meters) deep.
 - (3) Equipment that is unsuitable for retrieval will not be used, including, but not limited to, retrieval lines that have a reasonable probability of becoming entangled with the retrieval lines used by other Authorized Entrants, or retrieval lines that will not work due to the internal configuration of the Permit Confined Space.
- (c) If an injured entrant is exposed to a substance for which a Safety Data Sheet (SDS) or other similar written information is required to be kept at the jobsite, that SDS or written information will be made available to the medical facility treating the exposed entrant.

Rescue Procedures

1. A Stand-by may only enter a Confined Space for a rescue if he/she has:
 - A. Notified someone of the emergency.
 - B. Been replaced by the Foreman as a Stand-by.
 - C. Has appropriate equipment and training for the hazard.
 - D. Is able to complete a successful fit test. Facial hair prohibits an employee from attempting a fit test.
2. All Confined Space crew members must know the location of the nearest hospital, have a hospital map and have access to a phone in case a 911 call is needed.
3. All Confined Space employees must know how to evacuate themselves or an employee consistent with this Confined Space Program. Rescue methodology and instruction will be provided by a Supervisor prior to each new job, phase or significant condition change. Where necessary, as determined by the Confined Space configuration, work to be performed and other criteria by MCI Project Management prior to job start-up, an outside vendor specializing in Confined Space rescue will be contracted for employee rescue and be present at the Project jobsite.
4. All employees must know the hazardous substances or hazardous atmospheres that they are likely to encounter in the Confined Space, and the signs and symptoms of exposure.
5. All employees must know the location of the SDS binder and/or hotline telephone number.

6. Employees who do not understand the hazards or their role in a Confined Space rescue situation will ask the Foreman in charge. If needed, the Foreman will call the Safety Director for help.

Rickey Arslanian: Office (925) 373-8370 or Cell (925) 525-5420

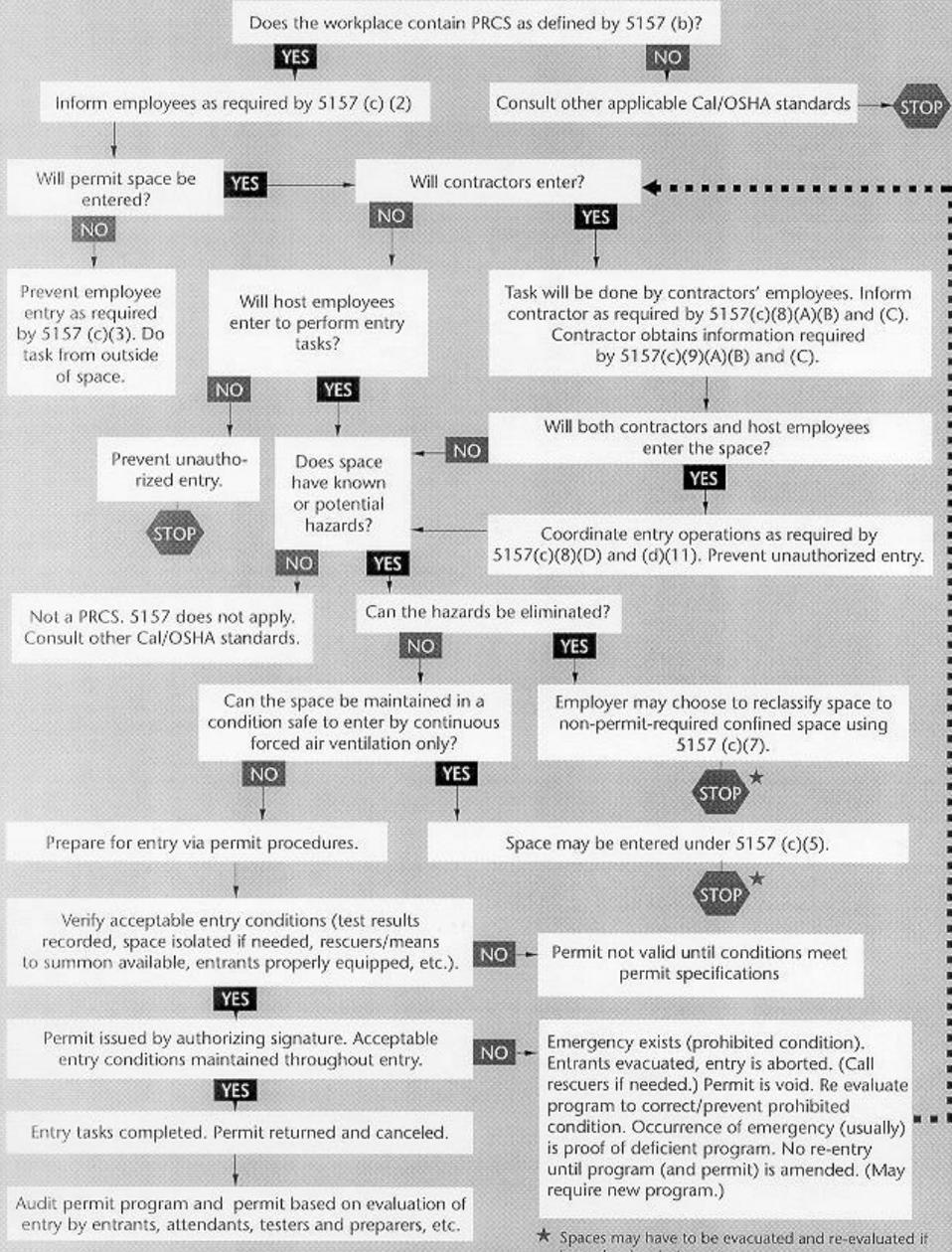
General Contractor Requirements

When Mountain Cascade acts as a General Contractor or subcontracts Confined Space activity, Mountain Cascade will:

1. Obtain a copy of the Subcontractor's Confined Space Program and ensure it is implemented.
2. Provide the Subcontractor with a copy of Mountain Cascade's Confined Space Program, when the Subcontractor's Confined Space Program does not meet Cal/OSHA's Confined Spaces in Construction Regulation or the minimum as stated in Mountain Cascade's Confined Space Program. The Subcontractor must then abide by Mountain Cascade's Program at a minimum, as well as comply with the provisions of Cal/OSHA's Title 8 Sections 1950 thru 1962 – Confined Spaces in Construction.
3. Apprise the Subcontractor of known hazards and/or precautions.
4. Coordinate entry procedures if both Mountain Cascade and the Subcontractor are working simultaneously.
5. Notify the Subcontractor of any condition changes confronted, created, or anticipated by Mountain Cascade.
6. Require all employees to comply with the Confined Space Program in place.

APPENDIX I

ATTACHMENT F Permit-Required Confined Space (PRCS) Decision Flow Chart



APPENDIX II

CONFINED SPACE GUIDE			
Concern Condition	Monitor	IDLH (Immediately Dangerous to Life & Health)	
	APR (10x Protection Factor) PPE LEVEL C (Air Purifying Respirator)	SAR PPE LEVEL B or A (Supplied Air Respirator)	
OXYGEN Asphyxiant	19.5% to 23.5% O ₂ Normal	<19.5%	Must use SAR below 19.5% O ₂
Simple/Chemical		>23.5%	No Entry - Continue Air Purging
Hydrogen Sulfide	10-80 ppm H ₂ S	100 ppm	Must use SAR at IDLH
Carbon Monoxide	25-350 ppm CO	1,200 ppm	Must use SAR at IDLH
Note: ppm = Parts-per-million			
COMBUSTIBLE GASES	25-250 ppm Methane and Organic Vapors	>10% LEL	Purge with Air to <10% LEL
TOXIC GASES/ IRRITANTS			
Carbon Monoxide	35-350 ppm CO	1,200 ppm	Must use SAR at IDLH.

Note: The Stand-by Employee must be at equivalent or greater level of PPE and on a separate air system. And, a Safety Harness is required for Confined Space work.

Note: This Confined Space Guide is intended to be used by MCI employees who already have completed Confined Space training operating procedures, and have encountered a detectable air monitor test. This table conforms to Micro Max Monitor parameters. Not to be used for welding gas protection.

APPENDIX III

**CONFINED SPACE ENTRY:
AIR MONITORING LOG**

Page 1 of 1

Keep Original in the MCI Project Manager's office. Return All field copies to this office at job completion.

AIR MONITORING LOG

Annotate Pre-Entry And Post-Entry Air Test Results

<u>Date</u>	<u>Time</u>	<u>Instrument & Model Number</u>	<u>Reading Location</u>	<u>Reading</u>	<u>Tester Name</u>
				O ₂ - LEL - CO - H ₂ S -	
				O ₂ - LEL - CO - H ₂ S -	
				O ₂ - LEL - CO - H ₂ S -	
				O ₂ - LEL - CO - H ₂ S -	
				O ₂ - LEL - CO - H ₂ S -	
				O ₂ - LEL - CO - H ₂ S -	

Monitoring Diagram

Emergency Numbers (Call using Work Cell Phone):

Ambulance _____

Fire _____

Hospital _____

Rescue Service _____

Signatures Date
(Acknowledgment of intent to enter Confined Space)

Project Superintendent

Entry Supervisor

MCI Safety Director

APPENDIX IV

CONFINED SPACE ENTRY PERMIT

Page 1 of 2

All copies of Permit will remain at jobsite until job is completed. Then sent to Office.

Date: _____ Job Number: _____

Location of Permit / Non-Permit Confined Space: _____

Purpose of Entry and Description of Work: _____

Acceptable Entry Conditions Required to Deem Confined Space as Non-Permit:

O₂ 19.5%-23.5% Δ LEL <10% Δ Hydrocarbon <5ppm Δ CO <25ppm Δ Hydrocyanic Acid <10 ppm

H₂S <10ppm Δ SO₂ <5ppm Δ Ammonia <25ppm Δ Dust <LEL Δ

Other Special Conditions: _____ Δ

Confined Space is ~~Classified~~ **Non-Permit Required Δ Permit Required Δ**

Start Date and Time: _____ End Date and Time: _____

<u>Name (Print and Initial)</u>	<u>Entry Date(s) & Time(s)</u>
Site Supervisor/Supt.* _____	_____
Entry Supervisor/Foreman* _____	_____
Authorized Entrant _____	_____
Authorized Entrant _____	_____
Authorized Entrant _____	_____
Attendant/Stand-by* _____	_____
Attendant/Stand-by* _____	_____
Attendant/Stand-by* _____	_____
Rescuer _____	_____
Rescuer _____	_____
Rescuer _____	_____

Signature

Date

Certification of Training Current _____

* **Must have current First-Aid and CPR.** Use additional page(s) if more persons need to be listed.

NOTE: By initialing or signing above, you are verifying that you understand the hazards, as well as understand and accept the entry procedures. **And, both** the Site Supervisor's and Entry Supervisor's Initials together authorize the entry.

CONFINED SPACE ENTRY PERMIT
(Continued)

All copies of Permit will remain at jobsite until job is completed. Then sent to Office.

HAZARDOUS WORK	<u>Yes</u>	<u>No</u>
Burning (hot work permit required)		
Welding (hot work permit required)		
Brazing (hot work permit required)		
Open Flame (hot work permit required)		
Steam Cleaning		
Other		
MEASURES USED TO ISOLATE SPACE, ELIMINATE/CONTROL HAZARDS AND COMMUNICATE & SPECIAL EQUIPMENT	<u>Yes</u>	<u>No</u>
Lockout - de-energize/tag-out		
Lines broken - capped or blanked		
Purge - flush and vent		
Ventilation		
Secure area/barricading		
Resuscitator - inhalator		
Buddy system		
Shields/barriers		
Emergency egress procedures in PSP		
Tripod emergency escape unit		
Lifelines and escape harness		
Fire extinguishers		
Lighting – Explosion Proof		
Communications procedures in PSP		
Communications Equipment Used:		
Protective clothing as specified in PSP		
Respirator as specified in PSP		
Supplied air as specified in PSP		
Evacuation alarm		
Other		

HAZARDS EXPECTED LISTED IN PSP		<u>Yes</u>	<u>No</u>
Corrosive materials			
Hot equipment			
Flammable materials			
Toxic materials			
Drains open			
Cleaning (e.g., chemical or water lance)			
Spark producing operations			
Spilled liquids			
Pressure systems			
Other			
<u>Test(S) To Be Taken</u>	<u>Action Level</u>	<u>Yes</u>	<u>No</u>
% Oxygen	<19.5% or >23.5%		
% LEL	Any % over 10		
Hydrocarbon/Volatile	5 ppm		
Carbon Monoxide	25 ppm		
Hydrocyanic Acid	10 ppm		
Hydrogen Sulfide	10 ppm		
Sulfur Dioxide	5 ppm		
Ammonia	25 ppm		
Dust	Meet/Exceed LEL		
Other			

NOTE:

- 1) All Confined Spaces will be tested for oxygen, LEL, and toxic contaminants **before entry**.
- 2) At a minimum, periodic air monitoring will be conducted while any person is inside the Space.
- 3) Continuous monitoring will be conducted any time forced air ventilation is being used for the Space.

Note: This Form can also be used and must be completed to provide the required documentation when downgrading a Permit Required Confined Space to a Non-Permit Confined Space. (See "Alternate Procedures for Entry into a Permit Required Confined Space," Section 1952(e)(2)(I), in the MCI Confined Space Program.)

RESPIRATORY PROTECTION PROGRAM

RESPIRATORY PROTECTION PROGRAM

The intent of this program is to protect the health of all Mountain Cascade's personnel by outlining the rules regarding the use of respirator masks for personal protection against airborne contaminants (dust, fumes, sprays, gases, etc.) and oxygen deficient environments. Where feasible, personnel exposure to possible airborne contaminants and/or oxygen deficient environments should be eliminated by engineering controls such as enclosure of the operation, ventilation or substitution of less toxic materials.

Responsibilities

It is the responsibility of the superintendent and foreman to identify which areas require the use of respiratory equipment. The superintendent and foreman are also responsible for providing the needed respiratory equipment. They are also responsible for ensuring that all personnel under his/her supervision are completely knowledgeable of the respiratory protection requirements for the areas in which they work. Each superintendent and foreman is responsible for ensuring that his/her subordinates comply with all applicable facets of the respiratory program.

Assistance in determining the need for the appropriate respiratory protection will be provided by the Safety Department. This should be addressed in the pre-job planning procedures.

Personnel are responsible for maintaining an awareness of the respiratory protection requirements for their work area, as well as for cleaning and inspecting their own equipment. In addition, personnel are responsible for wearing the appropriate respiratory equipment as required.

Respirators are to be worn when working with or exposed to gases, fumes, vapors or dust above the OSHA-permissible exposure limit (PEL) or when an oxygen-deficient atmosphere exists. OSHA's PEL can be identified on the SDS'.

Availability of Respirators

Each individual that requires a respirator will be issued one at the company's expense with replacements parts, cartridges and filters upon request for Mountain Cascade direct hire personnel. Various types of respirators and cartridges are available through the Mountain Cascade yard. The type of respirator and cartridges required must be identified in the jobs pre-planning procedures through the use of the SDS'.

Use of Respirators

For each task that requires a respirator, all personnel shall wear an approved respirator, properly fitted at all times while performing an operation defined as HAZARDOUS; or in the immediate area for an extended period of time where other personnel is performing a HAZARDOUS operation. Hazardous operations will be determined by the project superintendent in the pre-job planning procedures. Assistance in evaluating operations is available from the Safety Department. The following operations are examples that should be considered HAZARDOUS:

- Use of chemicals that the SDS requires or states that respirator protection shall be worn.
- Entrance into a confined space where the air monitor indicates a potential airborne contaminant, oxygen deficiency/enrichment or other atmospheric hazard.

Medical Examination

All personnel required to wear a respirator shall be given a physical examination to determine that they are medically and physically able to perform the task and use the equipment. All Mountain Cascade personnel who are required to wear a respirator must complete the Mountain Cascade Medical Questionnaire and have a medical examination.

The medical questionnaire must be treated as a confidential medical record and taken by the person to the medical facility performing the evaluation. NO copies are to be kept at the jobsite. Only Industrial Medical Doctors are eligible to conduct this evaluation. A listing of eligible doctors/facilities is available through the corporate office.

No Mountain Cascade personnel are to be placed in an environment that requires respirator use without first having the medical examination, respirator fitting and respirator training.

All records for Mountain Cascade direct hires (medical examination, fit testing form and other relevant records such as silica forms) are to be forwarded to the Corporate Safety Department. The Corporate Safety Department will issue Mountain Cascade Respirator Cards and place appropriate information on the Mountain Cascade Safety website. Individual subcontractors are responsible for the collection and storage of their personnel's medical records. Mountain Cascade may require proof of training, but will not request copies of medical records.

Selection of Respirators

Only NIOSH/MSHA approved respirators have been chosen for use in this program. The choice between these respirators is dependent upon the airborne contaminant present, the HAZARDOUS operation performed and on the basis of comfort and ease of obtaining a proper individual fit. Mountain Cascade will provide required respirators and maintain a supply at the yard for Mountain Cascade personnel; subcontractors are responsible to supply their personnel the required PPE. The useful life of each respirator will depend mainly on the individual's job duties and actual time the unit is in use and manufacturer recommendations.

These respirators are also noted to have the following limitations:

- Filtration (negative pressure) respirators do not protect personnel in low oxygen environments.
- Negative pressure respirators, with cartridges for specific hazards are limited to a concentration of 10 times the Permissible Exposure Limit (PEL)

Training of Personnel

Each respirator user will be shown and trained how to use and maintain the respirator based on that respirator use, its limitations and maintenance of that respirator (based on manufacturer recommendations). This training will be given by a competent foreman and/or safety professional and documented. After initial training, additional training will be provided on an as needed or as conditions change basis.

Personnel training shall consist of the following:

- Instruction on possible airborne contaminants and oxygen deficient atmospheres
- Fitting instructions (including demonstration in how the respirator should be worn and adjustments)
- Respirator user must read, understand and be able to apply the contents of this respirator program in the daily use, care and safekeeping of the respirator they have been assigned
- Training will be repeated annually

Copies of the Respiratory Protection Program will be available at all Mountain Cascade projects, the Mountain Cascade yard and through the Corporate Safety Director's office.

Fitting of Respirators

Proper fitting of respirators is essential if personnel are to receive the protection for which this program is designed. Air, which passes around the edges of the respirator rather than through it is not filtered air. In order to ensure a good face seal, the following rules must be observed:

- The respirator and straps must be in place and worn in the appropriate position (manufacturer procedures). To adjust headbands, pull the free ends tight until a comfortable fit is obtained. All straps shall be secure.
- To adjust face pieces properly, simply position chin firmly in the chin cup and manually shift rubber mask until the most comfortable position is located. Make final adjustments in the headband and do not break the nasal seal. Modification to the respirator or straps shall not be made.
- Proper fit must be checked each time the respirator is worn according to the manufacturer's instructions. Respirators shall not be worn when projections under the face piece prevents a good face seal. Such conditions may be a growth of beard, sideburns; temple pieces on glasses or skull cap the projects under the

face piece. Wearing of contact lenses in contaminated atmospheres with a respirator shall not be allowed. No personnel required to wear a respirator may wear a beard.

- The fitted respirator must be tested using the appropriate qualitative fit tests. For example, Isoamyl acetate should be used to check respirator fit when using organic vapor respirators by determining if the wearer can detect the banana oil odor. Irritant fume tests can be used with particulate respirators to ensure proper fit. This test is to be performed annually, and whenever the type of respirator assigned to the person changes.

In the event an individual is unable to obtain a satisfactory fit with the type of respirator furnished, efforts must be made to correct the problem (i.e. use of different brand of respirator, personnel rotation).

Maintenance of Respirators

Respirators should be cleaned after each day's use and placed in a plastic bag and stored in the container provided for this purpose.

When respirators need to be cleaned and disinfected, the following procedures shall apply:

- Remove the air-purifying elements from the respirator. Air-purifying elements must never be washed or disinfected.
- Immerse the respirator in a warm (140-160 degree F) aqueous solution of a germicidal detergent. The respirator face piece and parts may be scrubbed gently with a cloth or soft brush. Make sure the all foreign matter is removed from all surfaces of the rubber exhalation valve flap and plastic exhalation valve seats.
- After washing and disinfecting the respirator, rinse the same with clean, warm (140-160 degree F) water and then allow the respirator to dry.
- After the respirator is dry, attached the air-purifying elements.
- Store the respirator in the container provided for the purpose.

Any malfunction on the respirator shall be reported to the individual's supervisor. Replacement parts will be made available if needed.

After normal use respirators shall not be hung on the wall but must be stored in its plastic bag and in a provided container.

After inspection, cleaning and necessary repair, or after each day's use, the respirator shall be stored in the plastic bag and in the container provided for the purpose. In storing the respirator, the face and exhalation must be in a normal position so as to prevent the abnormal set of elastomeric parts during storage.

Each worker assigned to use a respirator shall maintain and routinely inspect it before and after each use. Respirators should be inspected routinely by the jobsite foreman to assure that it is kept clean and in satisfactory working condition. Respirator inspection shall include:

- Tightness of connections
- Conditions of face piece
- Condition of headbands
- Condition of cartridges
- Condition of valves
- Rubber or elastomeric for pliability
- Rubber or elastomeric for deterioration

NOTE: Stretching and manipulating rubber or elastomeric parts with a massaging action will keep them pliable and flexible and prevent them from taking a set during storage.

Worn out parts will be replaced immediately.

Respirator Program Evaluation

Mountain Cascade Safety Department shall monitor the effectiveness of this program by:

- Frequent unscheduled observation of personnel activities throughout the various projects to confirm proper respirator use.
- Periodic observation of and discussion with new personnel to confirm proper training has been carried out.
- Periodic discussion with foreman and superintendents during safety inspections.

Using Respirators when not required under the Standards

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged even when exposure are below the exposure limit, to provide an additional level of comfort and protection for personnel. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to personnel. Sometimes, personnel may wear respirators to avoid exposures to hazards, even if the amount of the hazardous substance does not exceed limits set by OSHA standards. Mountain Cascade may provide respirators for voluntary use, or individual can provide their own respirator, either way, personnel need to take certain precautions to be sure that the respirator itself does not present a hazard.

Personnel should do the following:

- Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator limitations.
- Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will say what the respirator is designed for and how much it will protect the individual.
- Do not wear a respirator into atmospheres containing contaminants for which the respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect against gases, vapors, or very small solid particles of fumes or smoke.
- Keep track of your own respirator so that you do not mistakenly use someone else's respirator.

Voluntary Respirator Use

- Where respirator use is not required MCI may provide respirators at the request of employees or permit employees to use their own respirators, if MCI determines that such respirator use will not in itself create a hazard.
- If MCI determines that voluntary respirator use is permissible, the supervisor will provide voluntary respirator users with the form contained in Attachment A of this RPP ("Information for Employees Using Respirators When Not Required Under the Standard").
- When respirators are used voluntarily, only the following written respiratory protection program elements must be met:
 - Employee medical evaluation and approval to wear a respirator
 - Procedures for cleaning, storing and maintaining respirators
 - Training – provide employees with the information contained in Attachment A of this RPP ("Information for Employees Using Respirators When Not Required Under the Standard")
 - Employees must understand the limitations of respirators and how to use and maintain them.
- Employees whose only use of respirators involves the voluntary use of filtering facepieces (dust masks) are not part of the MCI RPP.
- If MCI allows the voluntary use of respirators other than filtering facepieces, the costs associated with ensuring the respirator itself does not create a hazard, such as medical evaluations and maintenance must be provided at no cost to the employee.
 - Employees choosing to wear respirator must comply with the RPP procedures for Medical Evaluation, Respirator Use, and Cleaning, Maintenance and Storage.
 - Fit testing is not required for voluntary use of respirator.

- Employees using respirators on a voluntary basis must sign that they have received a copy of the notice in Attachment A.

Place a copy of the signed form in the employee's personnel file.

MOUNTAIN CASCADE
555 Exchange Ct.
Livermore, CA 94551

Project Name:	
Job Number:	
Job	
Address:	
JobPhone:	Job Fax:

RESPIRATOR TRAINING AND FIT TEST RECORD

Name: _____
Craft: _____
Employer: _____

Date: _____
SS# (last 4) _____

Training subject discussed: (rJ = completed)

- Respirator Type/Limitations
- Protection Factor (permissible exposure limit)
- Inspection (parts, seals, gaskets, straps, face piece)
- Maintenance (cleaning/storage/parts replacement)
- Adjustment (negative and positive pressure fit check, re-adjustment, clean shaven)
- Cartridge/Filter Limitations and Replacement procedures
- Storage of Filter
- Storage of Mask

FITTESTRECORD

Respirator Type: _____

Brand: _____ Size: _____ Series: _____

PASS	FAIL	
<input type="checkbox"/>	<input type="checkbox"/>	Positive Pressure Fit Check
<input type="checkbox"/>	<input type="checkbox"/>	Negative Pressure Fit Check
<input type="checkbox"/>	<input type="checkbox"/>	Qualitative Fit Test

Test Media Irritant Smoke Saccharin Isoamyl Acetate

Medical Evaluation conducted? Yes No

Date of Evaluation

Location of Evaluation

I have been trained and understand the safe use and limitations of the respirator and cartridges I have been issued. Further, I have been fit tested and agree with the results as stated above. This test is valid for 12months.

Employee Signature

Trainer Signature

- Do you currently smoke tobacco, or have you smoked tobacco in the last month? Dyes D no
- 2 Have you ever had any of the following conditions?
- a Seizures (fits) Dyes D no
 - b Diabetes (sugar disease) Dyes D no
 - c Allergic reactions that interfere with your breathing Dyes D no
 - d Claustrophobia (fear of closed-in places) Dyes D no
 - e Trouble smelling odors Dyes D no
- 3 Have you ever had any of the following pulmonary or lung problems?
- a Asbestosis Dyes D no
 - b Asthma Dyes D no
 - c Chronic bronchitis Dyes D no
 - d Emphysema Dyes D no
 - e Pneumonia Dyes D no
 - f Tuberculosis Dyes D no
 - g Silicosis Dyes D no
 - h Pneumothorax (collapsed lung) Dyes D no
 - Lung cancer Dyes D no
 - j Broken ribs Dyes D no
 - k Any chest injuries or surgeries Dyes D no
 - Any other lung problem that you've been told about Dyes D no
- 4 Do you currently have any of the following symptoms of pulmonary or lung illness?
- a Shortness of breath D yes D no
 - Shortness of breath when walking fast on level ground or walking up a slight hill or incline D yes D no
 - b Shortness of breath when walking with other people at an ordinary pace on level ground D yes D no
 - c Have to stop for breath when walking at your own pace on level ground D yes D no
 - e Shortness of breath when washing or dressing yourself D yes D no
 - f Shortness of breath that interferes with your job D yes D no
 - g Coughing that produces phlegm (thick sputum) D yes D no
 - h Coughing that wakes you early in the morning D yes D no
 - Coughing that occurs mostly when you are lying down D yes D no
 - j Coughing up blood in the last month D yes D no
 - k Wheezing D yes D no
 - Wheezing that interferes with your job D yes D no
 - m Chest pain when you breathe deeply D yes D no
 - n Any other symptoms that you think may be related to lung problems D yes D no

All Mountain Cascade personnel who are required to wear a respirator must complete the Mountain Cascade Medical Questionnaire AND have a Medical Examination. This medical questionnaire must be treated as a confidential medical record and taken to the medical facility performing the evaluation. NO copies are to be kept at the jobsite.

- 5 Have you ever had any of the following cardiovascular or heart symptoms?
- a Heart attack Dyes D no
 - b Stroke Dyes D no
 - c Angina Dyes D no
 - d Heart failure D yes D no
 - e Swelling in your legs or feet (not caused by walking) D yes D no
 - f Heart arrhythmia (heart beating irregularly) D yes D no
 - g High blood pressure D yes D no
 - h Any other heart problem that you've been told about Dyes D no

6. Have you ever had any of the following cardiovascular or heart symptoms?
- a Frequent pain or tightness in your chest D yes D no
 - b Pain or tightness in your chest during physical activity D yes D no
 - c Pain or tightness in your chest that interferes with your job D yes D no
 - d In the past two years, have you noticed your heart skipping or missing a beat D yes D no
 - e Heartburn or indigestion that is not related to eating D yes D no
 - f Any other symptoms that you think may be related to heart or circulation problems D yes D no

7. Do you currently take medication for any of the following problems?
- a Breathing or lung problems D yes D no
 - b Heart trouble D yes D no
 - c Blood pressure D yes D no
 - d Seizure (fits) Dyes D no

8 If you've used a respirator, have you ever had any of the following problems?
(If you've never used a respirator, check here and skip to question 9): **D**

- a Eye irritation D yes D no
- b Skin allergies or rashes D yes D no
- c Anxiety D yes **D** no
- d General weakness or fatigue D yes D no
- e Any other problem that interferes with your use of a respirator Dyes **D**no

9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire? Dyes D no

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-face piece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10 Have you ever lost vision in either eye (temporarily or permanently) D yes D no

All Mountain Cascade personnel who are required to wear a respirator must complete the Mountain Cascade Medical Questionnaire AND have a Medical Examination. This medical questionnaire must be treated as a confidential medical record and taken to the medical facility performing the evaluation. NO copies are to be kept at the jobsite.

- 11 Do you currently have any of the following vision problems?
- | | | |
|---|---------------------------------|-------------------|
| a | Wear contact lenses | D yes D no |
| b | Wear glasses | D yes D no |
| c | Color blind | D yes D no |
| d | Any other eye or vision problem | D yes D no |
- 12 Have you ever had an injury to your ears, including a broken ear drum? D yes D no
- 13 Do you currently have any of the following hearing problems?
- | | | |
|---|---------------------------|------------|
| a | Difficulty hearing | D yes D no |
| b | Wearing a hearing aid | D yes D no |
| c | Any other hearing problem | D yes D no |
- 14 Have you ever had a back injury? D yes D no
- 15 Do you currently have any of the following musculoskeletal problems?
- | | | |
|---|--|-------------------|
| a | Weakness in any of your arms, hands, legs, or feet | D yes D no |
| b | Back pain | D yes D no |
| c | Difficulty fully moving your arms and legs | D yes 0 no |
| d | Pain or stiffness when you lean forward or backward at the waist | D yes 0 no |
| e | Difficulty fully moving your head up or down | D yes 0 no |
| f | Difficulty fully moving your head side to side | D yes D no |
| g | Difficulty bending your knees | D yes 0 no |
| h | Difficulty squatting to the ground | D yes D no |
| | Climbing a flight of stairs or a ladder carrying more than 25 pounds | D yes D no |
| j | Any other muscle or skeletal problem that interferes with using a respirator | D yes D no |

I authorize my prospective/current employer and designated medical facility to perform an evaluation as deemed necessary or requested by my prospective/current employer to determine my suitability for respirator use. In addition, I authorize the release of the results of this evaluation to my prospective/ current employer to enable an evaluation of my current medical condition and suitability for respirator use. I understand that misstatement or omission of information could endanger my health by promoting a misinformed medical determination to my prospective/current employer. I further understand that this evaluation is specific for my use of respirators and is not meant to take the place of routine medical health evaluations.

SIGNATURE: _____

DATE: _____

All Mountain Cascade personnel who are required to wear a respirator must complete the Mountain Cascade Medical Questionnaire AND have a Medical Examination. This medical questionnaire must be treated as a confidential medical record and taken to the medical facility performing the evaluation. NO copies are to be kept at

MOUNTAIN CASCADE

555Exchange CtLivcnorc, Ca9-1551
Phom:.(925)373-8370 Fax(925)373-0179
License Number 422496

Project Name:

Job Number:

Job

Address:

Job Phone:

Job Fax:

Respirator Usage Information Form

Name: _____

Date: _____

Position: _____

SS# (last 4) _____

Type of respirator:

Filter mask, non-cartridge

Supplied air

Half- or full-face piece

Self-contained breathing apparatus

Powered air purifyin g

Duration and frequency of respirator use: _____ hours/day, _____ days/week

Activities performed during respirator use:

Environment during respirator use (i.e., extremes in temperature or humid ity):

Exposures encountered:

Any additional protective equipment worn:

THIS FORM IS TO BE COMPLETED AND SENT WITH THE EMPLOYEE TO THE DOCTOR'S OFFICE FOR DOCTOR'S USE IN EVALUATION.

LEAD EXPOSURE PLAN

LEAD EXPOSURE PLAN

Mountain Cascade, Inc. is committed to reduce and maintain employee exposure to lead, to or below the permissible exposure limit to the extent that such controls are feasible and supplement by the use of respiratory protection that complies with the requirements of Title 8, Section 1532.1

Permissible Exposure Limits – Mountain Cascade will insure that no employee is exposed to lead at concentrations greater than fifty micrograms per cubic meter of air averaged over an 8-hour period without the protection of a respirator.

Exposure Assessment – Mountain Cascade will determine if any employee may be exposed to lead based on any information, observations or calculations which would indicate employee exposure to lead; any previous measurements of airborne lead; and any employee complaints of symptoms which may be attributable to lead exposure.

Respiratory Protection – Where the use of respirators is required, Mountain Cascade will provide at no cost to the employee when the employee's exposure to lead exceeds the PEL. Mountain Cascade will select respirators from among those approved for protection against lead dust, fumes and mist by the Mine Safety and Health Administration and (NOISH) under the provision of 30 CFR part 11. Mountain Cascade will insure that the respirator issued to the employee is fitted properly.

Protective Clothing & Equipment – Mountain Cascade will provide at no cost to the employee, when the exposure to lead exceeds the PEL, appropriate protective work clothing and equipment. Mountain Cascade will provide cleaning or repairing of said clothing and equipment. Mountain Cascade will insure that all protective clothing is removed at the completion of the work shift in change areas provided for the purpose. Mountain Cascade will insure clothing is placed in a closed container, which prevents dispersion of lead outside the container. Container will be labeled "CAUTION" – Clothing contaminated with lead. Mountain Cascade will prohibit the removal of lead from protective clothing or equipment by blowing, shaking or any other means which disperses lead into the air.

Housekeeping – All surfaces will be maintained as free as practicable of accumulations of lead. Compressed air will not be used to remove lead from any surface.

Hygiene Facilities and Practices - Mountain Cascade will provide clean change areas, eating areas, hand washing facilities and shower facilities where feasible. Where showers are not provided Mountain Cascade will insure that employees wash their hands and face before eating and at the end of the day.

Medical Surveillance – Mountain Cascade will make available initial medical surveillance to employees occupationally exposed on any day to lead at or above the action level. Initial medical surveillance consists of biological monitoring in the form of blood sampling and analysis for lead and zinc protoporphyrin. Within five working days after the receipt of biological monitoring results, Mountain Cascade shall notify each employee in writing of his or her blood lead level.

Record Keeping – Mountain Cascade will establish and maintain an accurate record of all monitoring and other data used in conducting employee exposure assessments. Mountain Cascade will establish and maintain an accurate record for each employee subject to medical surveillance. Mountain Cascade will establish and maintain an accurate record for each employee removed from current exposure to lead. Mountain Cascade will establish and maintain an accurate record of exemptions from requirement for initial monitoring. Mountain Cascade will make available upon request all records to affected employees, former employees and their designated representative and to the Chief and NOISH for examination and copying.

HEAT ILLNESS PREVENTION PROGRAM

HEAT ILLNESS PREVENTION PROGRAM

Mountain Cascade Management has the authority and is responsible for training of employees in the control of risk of heat illness.

IDENTIFICATION – Heat illness is the inability of the body to cool itself down when its internal temperature rises above 98.6°F.

EVALUATION – Heat illness can take four principle forms:

- **Heat Rash** – may develop when the victim’s skin is kept moist while working, such as to hands in gloves or feet in work boots.
- **Heat Cramps** – generally affect the legs or stomach muscles. Heat cramps are likely related to the salts that are lost when sweating.
- **Heat Exhaustion** – may cause tiredness, light headedness or dizziness. It may also cause a stomach ache or headache. Heat sweating and pale skin are other signs of heat exhaustion.
- **Heat Stroke** – persons suffering from heat stroke may appear delusional, act like they are drunk or be irritable. If not caught quickly, then they will soon collapse and lose consciousness and may even go into convulsions. There will be little or no sweat and their skin will appear dry. And, the skin will be red or flushed, especially their faces. The touch of the hand will recognize fever, with the skin temperature hot, over 100°F. ***THIS IS A TRUE MEDICAL EMERGENCY AND CAN CAUSE DEATH.***

CONTROLS

Employee Training Indoor/Outdoor

- The environmental and personal risk factors for heat illness at Mountain Cascade are as follows: excavation activities, laying pipe, making grade, mortaring pipe joints, flagging traffic, pouring concrete. Some or all of these activities involve being exposed to direct sunlight. In addition to the work environment and work tasks, personal factors may affect an employee’s ability to adapt to a hot working environment. Employees should avoid consumption of coffee, soft drinks, energy drinks and alcoholic beverages for at least 8 hours prior to and at any time during the work day. In addition, illegal and prescription drugs may also interfere with the employee’s ability to acclimatize. Consumption of illegal drugs is always prohibited. Employees who are on prescription medications should consult with their doctor on the effects the medications have on acclimatization.
- The importance of the availability of water will be provided and made available by all Mountain Cascade jobsite foremen for all employees at their jobsite(s). At each jobsite, each foreman will have an ice chest filled with water bottles each morning (with ice as necessary to keep the water cold) water bottles will be available to all Mountain cascade employees working on the site. As necessary, the foreman will restock the ice chest with disposable water bottles during the day. Employees are encouraged to drink water throughout the day, not just at break and lunch times. Each employee working in a hot environment should consume one (1) quart or more of water per hour to make up for lost body fluids.
- The importance of acclimatization. Employees need to be aware that starting work after being in a different climate may require time for their bodies to adjust to the working climate. Such instances can occur when an employee relocates geographically or returns from a multi-day vacation or illness. When one of these events occurs, it is important for the employee to drink sufficient water and be aware of his/her physical condition throughout the work day to recognize and prevent heat illness. This may mean the employee takes one or more extended breaks in the shade of the building/structure being built, or in the jobsite trailer, jobsite shed or foreman’s vehicle to “cool down” his/her body temperature and drink water to replenish lost fluids
- The different types of heat illness and their common signs and symptoms. There are four (4) types of heat illness – Heat Rash, Heat Cramps, Heat exhaustion and Heat Stroke. Their common signs and symptoms are detailed in the “Evaluation” section above.

- The importance of the immediate reporting of the signs of heat illness. Employees are to perform a self-evaluation of their physical condition to detect the first signs of heat illness and to make sure they are drinking plenty of water. At the first signs of heat illness, the employee is to stop work immediately, seek out a cool shaded environment and wait a minimum of five (5) minutes in the cool shaded environment to see if he/she feels better. If there is no improvement or the symptoms worsen, employee is to call or see his/her foreman or superintendent immediately for assistance and direction.
- Training will be for employees before starting work involving heat illness risk. The training will be presented in a language that employees understand, and will be documented.

HIGH HEAT PROCEDURES- When temperatures are equal or exceeds 95 degrees Fahrenheit.

- Effective communication by voice, observation or electronic means will be maintained, so that employees at the worksite can contact a supervisor when necessary. If the supervisor is unable to be near the workers (to observe them or communicate with them), then electronic device, such as a cell phone or text messaging device, may be used for the purpose if reception in the area is reliable.
- Frequent communication will be maintained with employees working by themselves or in smaller groups. Workers will be monitored via phones or two-way radio, to be on the lookout for possible symptoms of heat illness.
- Employees will be observed for alertness and signs and symptoms of heat illness. When the supervisor is not available, an alternate responsible person may be assigned, to look for signs and symptoms of heat illness. Such a designated observer will be trained and know what steps to take if heat illness occurs.
- Employees will be reminded throughout the work shift to drink plenty of water.
- New employees will be closely supervised, or assigned a “buddy” or more experienced coworker for the first 14 days of the employment (unless the employee indicates at the time of hire that he or she has been doing similar outdoor work for at least 10 of the past 30 days for four or more hours per day).

Supervisor Training.

- The proper procedures for responding to heat illness. A foreman or superintendent upon hearing an employee saying he/she is suffering from heat illness, or seeing an employee suffering from heat illness, will first ask the following questions of the employee:
 - When was the last time you consumed water/liquids? And, how much did you consume?
 - What are your symptoms?
 - What level of heat illness are you at?
 - Do you require immediate medical attention?

A foreman or superintendent upon receiving a call from an employee saying he/she is suffering from heat illness; will first ask the following questions of the employee:

- What is your location?
- Are you in a shady or cool area?
- When was the last time you consumed water/liquids? And, how much did you consume?
- What are your symptoms?
- What level of heat illness are you at?
- Do you require immediate medical attention?

Based upon the answers to the above questions, the foreman or superintendent will take appropriate action. Such action may include, but is not limited to, have the employee self-treat him/her self, meet the employee at his/her location and transport the employee to the designated clinic, call 911 and have the employee transported to the nearest or designated hospital.

- The procedures the supervisor is to follow to implement the applicable provision in this section. All foremen and superintendents will receive training on the Heat Illness Prevention Program prior to implementation of this program, or upon hire or promotion to foreman or supervisor/manager position. Training will include reviewing the Cal/OSHA Heat Illness Prevention regulation and Mountain cascade’s Heat Illness Prevention Program plus viewing at least one heat illness training video and completing a corresponding quiz.

Water and Electrolytes Availability

Water must be pure, suitably cool, and provided to workers.

On “hot” days, employees are encouraged to drink a sufficient amount of water (at least 1 quart for every hour they will be working) to their jobsite. In addition, foremen are required to bring a 5-gallon jug or ice chest filled with cold water each morning and make this water available to all Mountain cascade employees working on their site. As necessary, the foreman will refill the 5-gallon jug or ice chest with cold water during the day. Water will be located as close as practicable to where employees are working so they can hydrate frequently during their shift.

Availability of Medical Attention

For employees, medical attention is provided by the company approved clinic and hospital for the specific jobsite. Employees should see their foreman and their foreman should contact the Safety Director, for the address and telephone numbers of their jobsite designated clinic and hospital.

Availability of Person Protective Equipment (PPE)

No PPE is provided for heat illness prevention, and none is considered necessary based upon the work performed.

Availability of a Cooling Environment

At selected jobsites, a jobsite trailer equipped with air conditioning is available to workers needing to rest in a cooling environment. In the absence of a jobsite trailer at a jobsite, each foreman’s vehicle and superintendent’s vehicle is equipped with an air-conditioned cab. Employees can seek refuge in the onsite foreman’s or superintendent’s vehicle for short periods on “hot” days, as necessary.

Anytime an employee takes a cool down rest breaks he/she must be monitored and asked if they are experiencing any heat illness symptoms.

DEFINITIONS

“Acclimatization” Means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.

“Heat Illness” means a serious medical condition resulting from the body’s inability to cope with a particular heat load, and includes heat rash, heat cramps, heat exhaustion, heat syncope, and heat stroke.

“Environmental Risk Factors for Heat Illness” means working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.

“Person Risk Factors for Heat Illness” means factors such as an individual’s age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body’s water retention or other physiological responses to heat.

“Preventative Recovery Period” means a period of time from the heat in order to prevent heat illness.

“Shade” means blockage of direct sunlight. Canopies, umbrellas and other temporary structures or devices may be used to provide shade. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning.

PROVISION OF WATER

Employees shall have access to potable drinking water meeting the requirements of Title 8, Section 1524, 3363, and 3457, as applicable. Where it is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employers may be the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour. The frequent drinking of water, as described in the "Employee Training" subsection above, shall be encouraged.

ACCESS TO SHADE

When temperatures reach 80 degrees Fahrenheit, shade will be available for employee breaks and for all those who take their meal periods onsite. For climates cooler than 80 degrees shade will be available upon request. Employees suffering from heat illness, or believing a preventative recovery period is needed, shall be provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes. Such access to shade shall be permitted at all times. Except for employers in the agricultural industry, cooling measures other than shade (e.g., use of misting machines) may be provided in lieu of shade if the employer can demonstrate that these measures are at least as effective as shade in allowing employees to cool.

Weather Monitoring

- Weather monitoring is conducted by Project Management using NOAA (National Oceanic and Atmospheric Administration).
- Prior to each work day, the forecasted temperature and humidity for the worksite will be reviewed and will be compared against the National Weather Service Index to evaluate the risk level for heat illness.
- Prior to each workday, the supervisor will monitor the weather using NOAA or with the aid of a simple thermometer at the worksite. The weather information will be taken into consideration, to determine, when it will be necessary to make modifications to the work schedule (such as stopping work early, rescheduling the job, working at night or during the cooler hours of the day, increasing the number of water and rest breaks).

Handling a Heat Wave

- During a heat wave or heat spike, the work day will be cut short or rescheduled or work hours changed to the cooler part of the day.
- During a Heat Wave or Heat Spike, and before starting work, tailgate meetings will be held, to review the company heat illness prevention procedures, the weather forecast and emergency response. In addition, if scheduled modifications are not possible, workers will be provided with an increased number of water and rest breaks and will be observed closely for signs and symptoms of heat illness.
- Each employee will work with another to monitor each other for signs and symptoms of heat illness and to ensure that emergency procedures are initiated when someone displays possible signs or symptoms of heat illness.
- All employees will be closely observed during a heat wave.
- Any new employee that is assigned to a high heat area must be observed by a supervisor or designee during the first 14 days of employment.

Procedures for Medical Emergency Response

- Each project foreman will have his/her site-specific clinic, hospital information and maps from their particular project location. If a project trailer is onsite they will be posted inside.
- Prior to assigning a crew to a particular project, efforts will be made to ensure that a qualified and appropriately trained and equipped person is available at the site to render first aid if necessary.
- Prior to the start of a project a determination will be made of whether or not a language barrier is present at the site and steps will be taken (such as assigning the responsibility to call emergency services to the foreman, supervisor or English-speaking worker) to ensure that emergency services can be immediately called in the event of an emergency.
- All foreman and supervisors will carry cell phones or other means of communication, to ensure that emergency medical services can be called. Checks will be made to ensure these electronic devices are functioning properly prior to each shift.

- At remote project sites such as undeveloped areas, the supervisor will designate an employee or employees to physically go to the nearest road or highway where emergency responders can see them. If daylight has diminished, the designated employee(s) shall be given flashlights in order to direct emergency personnel to the location of the worksite, which may not be visible from the road or highway.
- When an employee is showing symptoms of possible heat illness, steps will be taken immediately to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the progression to more serious illness).
- During a heat wave or hot temperatures, workers will be reminded and encouraged to immediately report to their supervisors any signs or symptoms they are experiencing.
- Employee and supervisor training will include the details of these emergency procedures.

Indoor Heat Illness

COOL-DOWN AREA (INDOOR WORKPLACES)

MCI will have one or more cool-down areas at all times.

A cool-down area can be an indoor or outdoor area that is blocked from direct sunlight and shielded from other high-radiant heat sources and is either open to the air or provided with ventilation or cooling.

Blockage is sufficient when objects do not cast a shadow in the area of blocked sunlight.

A cool-down area does not include a location where either:

Environmental risk factors do not allow the body to cool. AQ

Employees are exposed to unsafe or unhealthy conditions.

Employees must not be discouraged from using the cool-down area.

The cool-down area(s) shall be at least enough to accommodate the number of employees on recovery or rest periods.

The cool-down area(s) shall be large enough so that employees can sit in a normal posture fully in the shade without having to be in physical contact with each other.

The size cool-down area(s) present during meal periods shall be at least enough to accommodate the number of employees on the meal period who remain onsite.

This does not mean that enough shade is to be provided to accommodate all of the employees on the shift at the same time.

The cool-down area shall be located as close as practicable to the areas where employees are working.

Indoor cool-down areas shall be maintained at less than 82°F unless it is infeasible.

ASSESSMENT AND CONTROL MEASURES (INDOOR)

Assessment and control measures shall be implemented in indoor workplaces under any of the following conditions:

The temperature equals or exceeds 87°F.

The heat index equals or exceeds 87°F.

Employees wear clothing that restricts heat removal, and the temperature equals or exceeds 82°F.

Employees work in a high radiant heat area and the temperature equals or exceeds 82°F.

Assessment

Measure the temperature and heat index, and record whichever is greater.

Initial measurements shall be taken when one of the conditions in section 9.1 is present.

Additional measurements shall be taken when it is reasonable to believe the temperature has risen 10°F.

Additional measurements shall be taken at what is expected to be the hottest time during the work shift.

Records shall be retained for 12 months or until the next measurements are taken.

Instruments used to measure temperature and heat index shall be used and maintained according to the manufacturers' instructions.

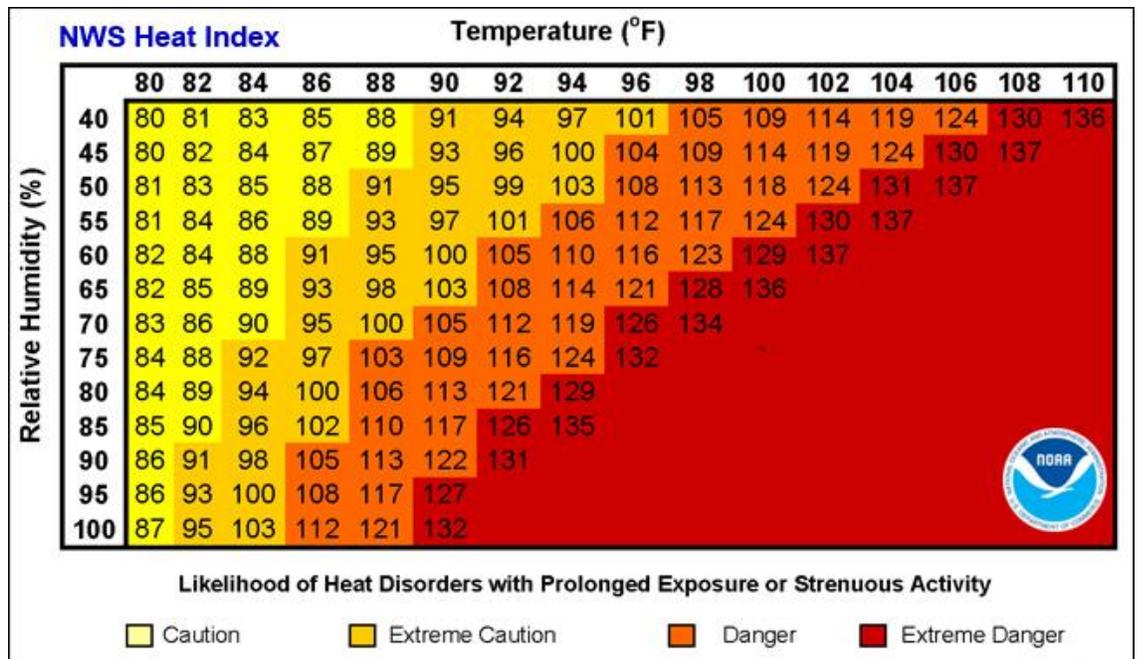
Instruments used to measure the heat index shall provide the same results as the NWS heat index chart below.

An employee working indoors who has been newly assigned to any of the following conditions shall be closely observed by a supervisor or designee for the first 14 days of employment:

An area where the temperature or heat index equals or exceeds 87°F.

An area where the temperature equals or exceeds 82°F and employees wear clothing that restricts heat removal.

A high radiant heat area where the temperature equals or exceeds 82°F.



Identify and evaluate other environmental risk factors for heat illness.

Employees shall be involved in:

Planning, conducting, and recording the measurements.

Identifying and evaluating other environmental risk factors for heat illness.

Temperature measurements do not need to be taken:

In vehicles with effective and functioning air conditioning.

Control Measures

Engineering controls shall be used to reduce and maintain both the temperature and heat index to below 87°F, or to reduce the temperature to below 82°F where employees wear clothing that restricts heat removal or work in high radiant heat areas

Examples of engineering controls include:

Increased natural ventilation by opening windows and doors.

Cooling fans or air conditioning.

Local exhaust ventilation at points of high heat production.

Reflective shields to block or reduce radiant heat.

Evaporative coolers.

When such controls are infeasible to meet the temperature and heat index thresholds, the employer shall:

Use engineering controls to reduce the temperature, heat index, or both, to the lowest feasible level.

Use engineering controls minimize the risk of heat illness, except to the extent feasible.

Use administrative controls to minimize the risk of heat illness, except to the extent feasible.

Administrative controls should be used once all feasible engineering controls have been implemented, but are not enough to meet the temperature and heat index thresholds.

Administrative controls include:

Modify work schedules to times when it is cooler.

Schedule shorter shifts, especially during heat waves.

Gradually increase shift length over the first one to two weeks for unacclimatized workers.

Require mandatory rest breaks in a cooler environment.

Reduce work intensity or speed.

Modify work clothing.

Mandatory buddy system.

Personal heat-protective equipment shall be used to where feasible engineering controls are not enough to meet the temperature and heat index thresholds **and** feasible administrative controls do not minimize the risk of heat illness.

Personal heat-protective equipment includes:

Water and/or air-cooled garments and neck wraps. The cooling source can be reusable ice packs or cooled air connected to an external source.

Supplied-air personal cooling systems.

Insulated suits.

Heat-reflective clothing.

DRUG AND ALCOHOL PREVENTION POLICY

DRUG AND ALCOHOL PREVENTION POLICY

Mountain Cascade's employees who belong to a union will follow their unions Drug and Alcohol policy guidelines. Each employee will be given a copy of their union drug and alcohol policy.

Statement of Purpose and Policy

- It is the intent of Mountain Cascade to comply with all laws and each individual union's drug and alcohol policy guidelines. To do this, we must constantly be aware of conditions in all work areas that can produce injuries. No employee is required to work at a job he/she knows is unsafe or unhealthy. Your cooperation in detecting drug or alcohol abuse will be appreciated. Please inform your foreman or manager immediately of known or suspected drug or alcohol abuse. No reprisal or punitive action will be taken against an employee for providing such hazard notice to company management.
- Any employee's involvement and/or abuse with drugs or alcohol will be considered as a serious threat to the safety and well being to themselves and to others. Such action will not be tolerated and appropriate disciplinary action shall be taken by Mountain Cascade.

Prohibited Behavior

- The company's Drug and Alcohol Abuse Prevention Policy defines prohibited behavior as the use, possession, sale or distribution of prohibited drugs or alcohol by any employee, temporary employee and/or subcontractor on company property or project, or while in the course of company business. Any employee engaging in the foregoing prohibited conduct will be subject to immediate disciplinary action. Prohibited drugs and the testing levels are listed on Exhibit B. The cut-off level for alcohol is also listed on Exhibit C.
- The use of drugs as part of a prescribed medical treatment program by a licensed physician is not prohibited, but employees shall advise their foremen or managers of the use of any prescription drug that may, in any way, affect their ability to safely perform their duties.

Activities Covered

- Operation of motor vehicles that are subject to the Federal Department of Transportation regulations, specifically 49 CFR, Part 40. Random alcohol testing will be conducted on at least 10% and drug testing on 50% of drivers annually
- Employees engaged in work pertaining to pipeline and related projects involved in the transmission and/or distribution of petroleum stock and/or natural gas subject to Federal Department of transportation regulations, specifically Pat 199.
- Where clients require the imposition of drug and/or alcohol programs by their contract language with Mountain Cascade, the subject policy will apply to all employees on said project.

Communication to Employees

- The company will make every effort to communicate the drug and alcohol abuse policies defined herein to its employees. Each employee will receive a copy of the company's drug and alcohol abuse policy, and will sign an acknowledgement to ensure that he/she received and understood the company's position on the issue of drug and alcohol abuse and each employee's responsibility under the policy. Additionally, the company will provide education via handouts on drug and alcohol abuse.
- Compliance with these policies and procedures is a condition of employment. An employee who violates any provisions of the policy or procedure will be immediately discharged.

Searches

- The company's property and all equipment, furniture and personal property maintained thereon are the sole and exclusive property of the company. The company reserves the right to inspect the company property, desks, lockers, storage areas, file cabinets, containers, vehicles, packages and employee common areas at any

time on a random basis with or without any advance notice. Law enforcement agencies will be contacted if illegal activity is suspected or if illegal substances are found.

- The company reserves the right to conduct unannounced searches of any or all of the company's property. Such inspections may be conducted during or after business hours and in the presence or absence of company employees.
- Where the company has reason to believe a company employee is violating any aspect of this plan, that employee may be requested to submit immediately to a search of any personal property located on the company's premises or facilities, including the inspection of personal vehicles.
- Entry onto the company's property, including parking areas, is deemed consent to an inspection of vehicle, and personal effects at any time while entering, on or leaving the property.
- Company employees who refuse to consent to such a search will be immediately discharged.

Drug Testing

- All employees, hired after 11-6-00 will be required to take a drug urine and/or breath/saliva alcohol test as required. A blood test may be request by employee if feasible. Those employees, or new applicants, failing the test will not be hired. Refusal to submit to a test will make an applicant ineligible to be considered for employment.
- Pre-employment
 - The company has instituted a pre-employment drug testing program for all of its applicants.
 - Applicants who are offered a position with the company will be required to successfully demonstrate that drugs are not being used, by taking and passing a drug test. Drug screening may be given in the field and/or drug testing will be administered at an approved clinic.
 - Tests conducted in the field are used to screen negative and non-negative results. Non-negative tests will not be used to reject employment. Employees with non-negative results will be sent to an approved clinic to submit a urine sample. Failure or refusal to submit to this test will make the employee non-hirable.
- Post accident/incident
 - A drug and/or an alcohol test are required when an employee is involved in a workplace accident requiring medical treatment, other than first aid, and/or property damage in excess of \$500.00. Testing may be waived only where it can be determined on the basis of specific information that the employee had no role in the cause of the accident. If it is unclear whether an injury is going to be categorized as a first aid then testing will be left to the discretion of the safety director or area manager.
 - All company employees involved in on-the-job incidents such as accidents, injuries or physical altercations will be required to submit to an alcohol/drug screen test immediately if demanded by the company unless, in the company's judgment, the employee can be completely discounted as a contributing factor to the accident. Any employee involved in an accident, injury or physical altercation must report the incident immediately to their foreman or manager. Refusal to report such an incident or to submit to such a test amounts to insubordination and may be sufficient grounds for termination from the company. Any employee failing such a test will be subject to disciplinary action up to and including immediate dismissal from the company. Post accident/incident testing will be conducted at an approved clinic, unless hour of the day makes this unfeasible; then a field test may be administered by the foreman or manager. If a non-negative test result is obtained, then the employee must go to an urgent care facility. Call safety director for urgent care facility location.

Reasonable Cause

- The company may require a drug and alcohol test of an employee when the company has reason to believe that an employee may be involved in the use of drugs or alcohol on a jobsite or under the influence on a jobsite. Reasonable cause testing exists when a foreman or manager can document specific personal observations concerning the employee. In those cases employees will be sent to an approved clinic for the test. If in the judgment of the foreman or manage, it is not prudent to allow an employee to drive to the clinic, then a field

test will be administered or the employee will be driven to the clinic. After evaluating the total circumstances, the safety department may determine a negative field test to be sufficient information for the incident. The employee will be driven to a clinic for a second test if a non-negative result is obtained from a field test. Those observations may include, but are not limited to:

- Unsafe work habits or practices that endanger the employee, fellow employees or the public.
- Abnormal work performance.
- Abnormal personal behavior and/or poor interpersonal relations on the job.
- Involvement in a workplace incident where the circumstances indicated the possibility that drugs or alcohol was a factor in the incident.

Random Testing

- All employees subject to the rules of the union contracts between the company and the Laborer's Union and the Operating Engineers Union are entered into a random drug testing pool via their foreman's name. The pool selects a foreman every other month and that crew is tested by the safety director. The superintendent, the foreman, the project coordinator, and the crew are all to be tested and no crew member is to be omitted. Management is included as a job and can also be randomly selected. In that instance testing will include the owner, the president, the safety director, area managers, estimators and any other managers and shop personnel who visit the field yet are not assigned to a particular job. The safety director will conduct the field testing, or a clinic will be used, and the president or owner will verify the results of the safety director's test.
- The consortium, AWSI, generates the random selection, not Mountain Cascade.
- All full-time, part-time and temporary employees who are union member will be included in the pool.
- Entrance into a treatment program does not relieve an employee of the obligation to satisfy the company's standards regarding an employee's performance. Participants in a treatment program will not prevent the company from administering discipline for violation of the policies or relieve the employee of his/her responsibility to perform his/her job in a satisfactory, safe and efficient manner.
- Drug and alcohol screenings in the field may be performed. However, all employees with a non-negative reading must be sent to an approved clinic for a drug and/or alcohol test.

Subcontractors

- When Mountain Cascade is contractually bound to an anti-drug and alcohol program, all of its subcontractors are subject to being equally bound.

Consequences of Failing or Refusing to Take a Drug or Alcohol Test

- Failing a drug test or alcohol test
 - The company will not hire an applicant who fails a drug test after the Medical Review Officer determines that there is no legitimate medical explanation for the confirmed positive test result other than the unauthorized use of a prohibited drug.
 - In addition, the company will not continue to employ an employee who tests positive for alcohol, as defined in Exhibit C. A positive test will require enrollment in an approved rehabilitation program, and/or required selective random testing for a period of 1 to 5 years, or result in termination. Mountain Cascade's safety director will determine and then recommend the course of action best suited for the individual and the company.
- Refusal to take a drug or alcohol test
 - The company will not hire an applicant or continue to employ an employee who refuses to take a drug or alcohol test.

Employee Assistance Program

- The company expects employees who suspect they have an alcohol or drug problem to seek treatment. Employees should refer to Exhibit D, at the end of this section for referral to an appropriate profession organization.

- It is the responsibility of the employee to seek and accept assistance before drug and alcohol problems lead to disciplinary action, including termination.
- Entrance into a treatment program does not relieve an employee of this policy. Employee performance and disciplinary procedures will still be evaluated despite enrollment in an approved drug and alcohol recovery program.

Medical Review Officer (MRO) / Substance Abuse Professional (SAP)

- Mountain Cascade engages the services of an independent Medical Review Officer (MRO) to analyze and summarize all drug testing results. The MRO is a licensed physician with knowledge in the field of illicit drugs and alcohol.
- The MRO will determine if the test is positive and if so there is a legitimate reason for that result. If the determination is that there is not a valid explanation for the positive test result, the individual will be referred to the Mountain Cascade Safety Director for termination
- An employee or applicant who has failed or refused to take a test must take a drug test and receive approval from the SAP and/or safety director prior to employment or re-employment. Said employee will be subject to at least six (6) random tests in the first twelve months after returning to duty and may be extended for up to sixty (60) months after their return to employment.
- Under no circumstance is Mountain Cascade responsible for rehabilitation of any employee for drug or alcohol abuse. Mountain Cascade will, confidentially, recommend treatment or rehabilitation facilities as requested.

Confidentiality

- The company will carefully consider individual expectations of privacy and confidentiality in retaining records under this plan. With the exception of the testing laboratory, the Medical Review Officer and the company representative designated in Exhibit B, at the end of this section, the drug test results may not be released to anyone without the express written authorization of the tested individual, unless requested as part of an accident investigation. This information may be disclosed regardless of consent in a lawsuit, grievance or other proceeding initiated by or on behalf of the individual and arising from a verified positive drug test.
- To maintain confidentiality, written records regarding testing and rehabilitation under this plan will be stored in locked containers or in secure locations. These records will not be made part of individual personnel files.
- Employees going through rehab to become re-employed by the company have functionally the right to absolute privacy. The safety director may inform the immediate foreman or manager of the circumstances in order to facilitate rehire issues, counseling schedules and random tests.

Policy Violations

- Compliance with these policies and procedures is a condition of employment. An employee who violates any provision of the policy or procedure will be immediately discharged.
- Law enforcement intervention shall supersede the requirements of the drug and alcohol policy. In this instance a drug or alcohol test will be conducted as soon as possible if needed at all. An employee's preference to submit to a blood test for a drug screen or a blood/urine for an alcohol test may be accepted as an alternative so long as this is logistically reasonable. Blood or urine collection for medical reasons may also be used, with employee consent, so long as an approved chain of custody system has been followed.
- The policy provisions stated in this policy are applicable to subcontractors of the company. Violations of these provisions or refusal to cooperate can result in the company barring subcontractors from the company facilities or from participating in the company operations.

Drug Testing Collection / Submission Procedures

- Privacy
 - Procedures for collecting urine specimens will allow individual privacy unless there is a reason to believe that a particular individual may alter or substitute the specimen to be provided, as further described in this paragraph.

- For the purpose of this procedure, the following circumstances are the exclusive grounds constituting a reason to believe that the individual may alter or substitute the specimen.
 - The employee has presented a urine specimen that falls outside the normal temperature range (32°-38°C/90°- 100°F)
 - ❖ The employee declines to provide a measurement of body temperature taken by a means other than use of a rectal thermometer
 - ❖ Body temperature varies by more than 1°C/1.8°F from the temperature of the specimen.
 - The last urine specimen provided by the employee (i.e., on a previous occasion) was determined by the laboratory to have a specific gravity of less than 1.003 and a creatinine concentration below .2g/L.
 - The collection site person observes conduct clearly and unequivocally indicating an attempt to substitute or alter the sample (e.g., substitute urine in plain view, blue dye in specimen presented)
 - The employee has previously been determined to have used a controlled substance without medical authorization and the particular test was being conducted under a policy providing for follow-up testing upon or after return to service.
 - A higher-level foreman or manager of the collection site person, or a designated employer representative, will review and concur in advance with any decision by a collection site person to obtain a specimen under direct observation. Direct observations must be conducted by a same gender collection site person.
- Integrity and Identity of Specimen
 - The collection site person will take precautions to ensure that a urine specimen is not adulterated or diluted during the collection procedure and that information on the urine bottle and on the urine custody and control form can identify the individual from whom the specimen was collected. The following minimum precautions will be take to ensure that unadulterated specimens are obtained and correctly identified:
 - ❖ To determine the dilution of specimens at the collection site, toilet-bluing agents will be placed in toilet tanks wherever possible, so that reservoir of water in the toilet bowl always remains blue. Where practicable, there will be no other source of water (e.g., no shower or sink) in the enclosure when urination occurs. If there is another source of water in the enclosure, it will be effectively secured or monitored to ensure it is not used as a source for diluting the specimen.
 - ❖ When an individual arrives at the collection site, the collection site person will ensure that the individual is positively identified as the employee selected for testing (e.g., through presentation of photo identification or identification by the employer's representative). If the individual's identity cannot be established, the collection site person will not proceed with the collection. If the employee requests, the collection site person will show proper identification to the employee.
 - ❖ If the individual fails to arrive at the assigned time, the collection site person will contract the appropriate authority to obtain guidance on the action to be taken.
 - ❖ The collection site person will ask the individual to remove any unnecessary outer garments such as a coat or jacket that might conceal items or substances that could be used to tamper with or adulterate the individual's urine specimen. The collection site person will ensure that all personal belongings such as a purse or briefcase remain with the outer garments. The individual may retain his or her wallet. If the employee requests it, the collection site person will provide the employee a receipt for any personal belongings.
 - ❖ The individual will be instructed to wash and dry his/her hands prior to urination.

- ❖ After washing hands, the individual will remain in the presence of the collection site person and will not have access to any water fountain, faucet, soap dispenser, cleaning agent, or any other materials which could be used to adulterate the specimen.
- ❖ The individual may provide their specimen in the privacy of a stall or otherwise partitioned area that allows for individual privacy. The collection site person will provide the individual with a specimen bottle or collection container, if applicable, for this purpose.
- ❖ The collection site person will note any unusual behavior or appearance on the urine custody and control form.
- ❖ In the exceptional event that an employer designated collection site is not accessible and there is an immediate requirement for specimen collection (e.g., circumstances require a post accident test), a public rest room may be used according to the following procedures: A collection site person of the same gender as the individual will accompany the individual into the public rest room which will be made secure during the collection procedure. If possible, a toilet-bluing agent will be placed in the bowl and any accessible toilet tank. The collection site person will remain in the rest room, but outside the stall, until the specimen is collected. If no bluing agent is available to deter specimen dilution, the collection site person will instruct the individual not to flush the toilet until the specimen is delivered to the collection site person. After the collection site person has possession of the specimen, the individual will be instructed to flush the toilet and to participate with the collection site person in completing the chain-of-custody procedures.
- ❖ If the company is using a single collection method then the following procedures will be used:
 - ⇒ The collector may choose to direct the employee to urinate either directly into a specimen bottle or into a separate collection container.
 - ⇒ If a separate collection container is used, the collection site person will pour at least 30ml of the urine from the collection container or the specimen bottle in the presence of the employee.
- ❖ Collection methodology
 - ⇒ In either collection methodology, upon receiving the specimen from the individual, the collection site person will determine if it has at least 30ml of urine for a single specimen collection or 45ml of urine for a split specimen collection. If the individual has not provided the required quantity of urine, the specimen shall be discarded. The collection site person shall direct the individual to drink up to 40 ounces of fluid, distributed reasonable through a period of up to three hours, or until the individual has provided a new urine specimen, which ever occurs first. If the employee refuses to drink fluids as directed or to provide a new urine specimen the collection site person shall terminate the collection and notify the employer that the employee has refused to submit to testing. If the employee has not provided a sufficient specimen within three hours of the first unsuccessful attempt to provide the specimen, the collection site person shall discontinue the collection and notify the employer.
 - ⇒ The company shall direct any employee who does not provide a sufficient urine specimen to obtain, as soon as possible after the attempted provision of urine, an evaluation from a licensed physician who is acceptable to the employer concerning the employee's ability to provide an adequate amount of urine.

- ⇒ If the physician determine, in his/her reasonable medical judgment, that a medical condition has, or with a high degree of probability, could have, precluded the employee from providing an adequate amount of urine, the employee's failure to provide an adequate amount of urine shall not be deemed a refusal to take a test. For purposes of this paragraph, a medical condition includes an ascertainable physiological condition (e.g., a urinary system dysfunction) or a documented pre-existing physiological disorder, but does not include unsupported assertions of "situational anxiety" or dehydration. The physician shall provide to the MRO a brief written statement setting forth his/her conclusion and the basis for it, which shall not include detailed information on the medical condition of the employee. Upon receipt of this statement, the MRO shall report his/her conclusion to the company in writing.
- ⇒ If the physician, in his/her reasonable medical judgment, is unable to make the determination set forth above, the employee's failure to provide an adequate amount of urine shall be regarded as a refusal to take a test. The physician shall provide to the MRO a brief written statement setting forth his/her conclusion and the basis for it, which shall not include detailed information on the medical condition of the employee. Upon receipt of this statement, the MRO shall report his/her conclusions to the employer in writing.
- ❖ Employers using the split sample method of collection will follow the procedures set forth below:
 - ⇒ The donor will urinate into a collection container or specimen bottle capable of holding at least 60ml.
 - ⇒ If a collection container is used, the collection site person, in the presence of the donor pours the urine into two specimen bottles. Thirty (30) ml will be poured into one bottle, to be used as the primary specimen. At least 15ml will be poured into another bottle, to be used as the split specimen.
 - ⇒ If a single specimen bottle is used as a collection container, the collection site person, in the presence of the donor, will pour 15ml of urine from the specimen bottle into a second specimen bottle (to be used as the split specimen) and retain the remainder, at least 30ml, in the collection bottle (to be used as the primary specimen).
 - ⇒ Both bottles will be shipped in a single shipping container, together with copies 1 and 2, and the split specimen copy of the chain-of-custody form, to the laboratory.
 - ⇒ Any specimen collected under split sample procedures must be stored in a secured, refrigerated environment and an appropriate entry made in the chain-of-custody form.
 - ⇒ If the test result of the primary specimen is positive, the employee may request that the MRO direct that the split specimen be tested in a different DHHS- certified laboratory for presence of the drug(s) for which a positive result was obtained in the test of the primary specimen. The MRO will honor such a request if it is made within 72 hours of the employee having been notified of a verified positive test result.
 - ⇒ When the MRO informs the laboratory in writing that the employee has requested a test of the split specimen, the laboratory will forward, to a different DDHS- approved laboratory, the split specimen bottle, with seal

intake, a copy of the MRO request, and the split specimen copy of the chain-of-custody form with appropriate chain-of-custody entries.

- ⇒ The result of the test of the split specimen is transmitted by the second laboratory to the MRO.
 - ⇒ Action required by DOT agency regulations as the result of a positive drug test (e.g., removal from performing a safety sensitive function) is not stayed pending the result of the test of the split specimen.
 - ⇒ If the result of the test of the split specimen fails to reconfirm the presence of the drug(s) or drug metabolite(s) found in the primary specimen, the MRO will cancel the test, and report the cancellation and the reasons for it to the DOT, the employer, and the employee.
- ❖ After the specimen has been provided and submitted to the collection site person, the individual will be allowed to wash his/her hands.
 - ❖ Immediately after the specimen is collected, the collection site person will measure the temperature of the specimen. The temperature measuring device used must accurately reflect the temperature of the specimen and not contaminate the specimen. The time from urination to temperature measured is critical and in no case will exceed 4 minutes.
 - ❖ A specimen temperature outside the range of 32°-38°C/90°-100°F, constitutes a reason to believe that the individual has altered or substituted the specimen (see paragraph above on integrity and identity of specimen). In such cases, the individual supplying the specimen may volunteer to have their temperature taken to provide evidence to counter the reason to believe the individual may have altered or substituted the specimen.
 - ❖ Immediately after the specimen is collected, the collection site person will also inspect the specimen to determine its color and look for any sign of contaminants. Any unusual findings will be noted on the urine custody and control form.
 - ❖ All specimens suspected of being adulterated will be forwarded to the laboratory for testing.
 - ❖ Whenever there is reason to believe that a particular individual has altered or substituted the specimen as described in this section, a second specimen will be obtained as soon as possible under the direct observation of a same gender collection site person.
 - ❖ Both the individual being tested and the collection site person will keep the specimen in view at all times prior to its being sealed and labeled. As provided below, the specimen will be sealed by placement of a tamper-proof seal over the bottle cap and down the sides of the bottle and labeled in the presence of the employee. If the specimen is transferred to a second bottle, the collection site person will request the individual to observe the transfer of the specimen and the placement of the tamper-proof seal over the bottle cap and down the sides of the bottle.
 - ❖ The collection site person and the employee will be present at the same time during procedures outlined in

RETURN TO WORK POLICY

RETURN TO WORK POLICY

Mountain Cascade believes that our greatest asset is our work force. Therefore, it is our goal to make sure that any worker who is injured on one of our jobsites gets the best care available and is able to return to productive work as soon as medically feasible.

An injured worker benefits greatly when he/she is able to return to productive work as soon as medically feasible. The worker continues to be an essential part of the team and contributes to timely completion of a project. Studies show that the longer a worker is off work, the greater the likelihood that he/she will not successfully return to work in his/her job at the time of the injury.

Our ultimate goal is to return the worker to his/her job duties at the time of injury. However, because each of our projects is unique and all projects end at one point or another, we cannot offer an injured worker a permanent transitional assignment. Transitional assignments are temporary in nature and designed to enable the worker to eventually return to full duty.

Each injury will be looked at individually. Decisions about transitional work assignments will depend on the nature of the injury and the probability of return to work at full duty, in the sole discretion and judgment of Mountain Cascade.

RETURN TO WORK PROCEDURES

Whenever an individual is injured on the job, the following procedures must be followed:

- If the injured worker's physician releases the worker to return to work, the superintendent should immediately notify Tracy Bower. Any transitional duty assignment is to be productive duty and the individual is allowed to work only up to 40 hours per week with no overtime. If transitional work cannot be provided or is not approved by the treating care provider, Tracy will immediately notify the company's claims processor so that the injured worker can begin receiving any time loss benefits to which he/she is entitled.
- Once a transitional duty assignment has been defined, a return to work letter must be completed by the supervisor and signed by the injured worker. The return to work must then be forwarded to the attending physician for approval.
- If an injured worker declines transitional duty, our claims processor will be notified and provided with copies of the transitional duty assignment and the letter signed by the individual. The injured worker may not be eligible for time loss benefits as a result of his/her failure to accept a transitional duty assignment.
- It is important that the injured worker attend all his/her follow up appointments with the treating care provider. The worker's restrictions will be reviewed after each treatment and his/her job description will be changed, if appropriate, to reflect any new restrictions.
- If an individual is off work due to restrictions, for which transitional duty is not available, we will maintain continued contact with the injured worker's care provider.
- All transitional assignments are available only for a limited time, usually up to 60 days. The duration of assignment will be documented on the letter to the individual.
- If necessary, Mountain Cascade will contact the injured worker's doctor to schedule an appointment to determine the worker's status. If the worker is not expected to be able to return to full duty, the case will be reviewed with Matrix to determine possible options.
- If the injured worker's physician feels that he/she will be able to return to full duty within a reasonable period, we will again define the worker's restrictions and determine possible transitional tasks that the worker can perform.
- Each injured worker's situation is unique and will be determined accordingly. Mountain Cascade cannot offer permanent transitional assignments. Each project ends, as with employment of the work force for each project. Placement of a transitional duty worker on another project will depend wholly upon the amount of current construction and the availability of transitional duty on other projects.

Wild Fire Smoke Program

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1. Foreword

- 1.1. These rules comply with [California Code of Regulations, Title 8, Section 5141.1](#), and detail the protections Mountain Cascade, Inc. has in place to protect employees from the health effects of wildfire smoke.
- 1.2. Mountain Cascade, Inc. policy is to take every reasonable precaution to protect the health and safety of employees exposed to wildfire smoke.
- 1.3. All employees and contractors are required to follow these rules.
- 1.4. These protections apply to worksites where:
 - 1.4.1. The current Air Quality Index (AQI) for fine inhalable particles, with diameters that are 2.5 micrometers and smaller (PM2.5) is 151 or greater, regardless of the AQI for other pollutants.
 - 1.4.2. The Mountain Cascade, Inc. can anticipate that employees may be exposed to wildfire smoke.
- 1.5. The following workplaces and operations are exempt from these rules:
 - 1.5.1. Enclosed buildings or structures in which the air is filtered by a mechanical ventilation system and Mountain Cascade, Inc. ensures that windows, doors, bays, and other openings are kept closed, except when it is necessary to open doors to enter or exit.
 - 1.5.2. Enclosed vehicles in which the air is filtered by a cabin air filter and Mountain Cascade, Inc. ensures that windows, doors, and other openings are kept closed, except when it is necessary to open doors to enter or exit the vehicle.
 - 1.5.3. Mountain Cascade, Inc. demonstrates that the concentration of PM2.5 in the air does not exceed an AQI of 151 at the worksite.
 - 1.5.4. Employees exposed to an AQI for PM2.5 of 151 or greater for a total of one hour or less during a shift.
 - 1.5.5. Firefighters engaged in wildland firefighting.
- 1.6. Any questions regarding these wildfire smoke protections should be directed to your supervisor.

2. Responsibilities

- 2.1. The responsibilities of Supervisors and Managers are as follows:
 - 2.1.1. Ensuring that employees that may be exposed to wildfire smoke receive safety training.
 - 2.1.2. Ensuring that the WSSP is properly implemented and that all employees follow the requirements of the WSSP.
 - 2.1.3. Checking the PM2.5 AQI level at the beginning of the shift in case of wildfire and communicating the information to their employees.
- 2.2. Mountain Cascade, Inc. employees are required to follow these rules.

3. Air Quality Index (AQI)

- 3.1. The AQI is an index for reporting daily air quality.
- 3.2. PM2.5 are solid particles and liquid droplets suspended in air, known as Particulate Matter, with an aerodynamic diameter of 2.5 micrometers or smaller.
 - 3.2.1. PM2.5 are fine inhalable particles that can be a health hazard.
- 3.3. Mountain Cascade, Inc. shall determine employee exposure to PM2.5 for worksites covered by this section at the start of each shift and periodically thereafter, as needed to protect the health of employees, by any of the following methods:
 - 3.3.1. Checking the AQI for PM2.5 at AirNow.gov
 - 3.3.2. Checking the AQI for PM2.5 with the AirNow app
 - 3.3.3. Checking the AQI for PM2.5 with the California Smoke Spotter app
 - 3.3.4. In some cases it may be necessary to measure PM2.5 levels at the jobsite and convert the PM2.5 levels to the corresponding AQI. An industrial hygiene consultant may be used for this.

4. Communication

- 4.1. Mountain Cascade, Inc. will communicate wildfire smoke hazards in a language and manner readily understandable by employees, including provisions designed to encourage employees to inform Mountain Cascade, Inc. of wildfire smoke hazards at the worksite without fear of reprisal.
- 4.2. Communication to employees will include:
 - 4.2.1. The current AQI for PM2.5
 - 4.2.2. Protective measures available to employees to reduce their wildfire smoke exposures
 - 4.2.3. Encouraging employees to inform Mountain Cascade, Inc. of worsening air quality and adverse symptoms that may be the result of wildfire smoke exposure such as asthma attacks, difficulty breathing, and chest pain
- 4.3. The following chart can be used to communicate wildfire smoke hazard level:

Air Quality Index (AQI) Category for PM2.5	Levels of Health Concern
0 to 50	Good
51 to 100	Moderate
101 to 150	Unhealthy for Sensitive Groups
151 to 200	Unhealthy
201 to 300	Very Unhealthy
301 to 500	Hazardous

5. Training

- 5.1. Employees who are or may be exposed to wildfire smoke shall receive effective wildfire smoke safety training, in a language and manner readily understandable by employees.
- 5.2. Wildfire smoke safety training must cover the following information:
 - 5.2.1. The requirements of [Section 5141.1. Protection from Wildfire Smoke](#)
 - 5.2.2. The health effects of wildfire smoke
 - 5.2.3. The right to obtain medical treatment without fear of reprisal
 - 5.2.4. How employees can obtain the current AQI for PM2.5
 - 5.2.5. Mountain Cascade, Inc. two-way communication system
 - 5.2.6. Mountain Cascade, Inc. methods to protect employees from wildfire smoke
 - 5.2.7. The importance, limitations, and benefits of using a respirator when exposed to wildfire smoke
 - 5.2.8. How to properly put on and use the respirators provided by Mountain Cascade, Inc.
- 5.3. Training records shall be kept according to the Mountain Cascade, Inc. Injury and Illness Prevention Program (IIPP).

6. Controls

6.1. Engineering Controls:

- 6.1.1. Mountain Cascade, Inc. shall reduce employee exposure to PM2.5 to less than an AQI of 151 by engineering controls whenever feasible, for instance by providing enclosed buildings, structures, or vehicles where the air is filtered.
- 6.1.2. If engineering controls are not sufficient to reduce exposure to PM2.5 to less than a current AQI of 151, then Mountain Cascade, Inc. shall reduce employee exposures to the extent feasible.

6.2. Administrative Controls:

- 6.2.1. Whenever engineering controls are not feasible or do not reduce employee exposures to PM2.5 to less than a current AQI of 151, Mountain Cascade, Inc. shall implement administrative controls, if practicable, such as relocating work to a location where the current AQI for PM2.5 is lower, changing work schedules, reducing work intensity, or providing additional rest periods.

7. Respiratory Protection

- 7.1. Where the current AQI for PM2.5 is equal to or greater than 151, but does not exceed 500, Mountain Cascade, Inc. shall provide a sufficient number of respirators to all employees for voluntary use and encourage employees to use respirators.
- 7.2. Where the current AQI for PM2.5 exceeds 500, respirator use is required.
- 7.3. Respirators shall be NIOSH-approved devices that effectively protect the wearers from inhalation of PM2.5, such as N95 filtering facepiece respirators.
- 7.4. Respirators shall be cleaned or replaced as appropriate, stored, and maintained, so that they do not present a health hazard to users.
- 7.5. For those employees, whose only use of respirators involves the voluntary use of filtering facepieces, such as N95 respirators, fit testing and medical evaluations are not required.
- 7.6. Mountain Cascade, Inc. shall provide respirators with an Assigned Protection Factor (APF), such that the PM2.5 levels inside the respirator correspond to an AQI less than 151.
 - 7.6.1. Half face APF is 10
 - 7.6.2. Full face APF is 50.

Work Place Violence Prevention Plan WVPP

Mountain Cascade, Inc. Workplace Violence Prevention Plan Implementation Guide and Checklist

POLICY STATEMENT

Across the nation incidents of workplace violence and threats of violence have significantly increased in recent years. Immediate victims, as well as others, are affected by workplace violence or threats of violence, including fellow employees, family members and clients. The physical injuries, emotional distress and potential loss of life resulting from workplace violence may have long-term effects. Acts of violence or threats of violence may also have an impact on productivity and the effectiveness of the organization for an extensive period of time.

Mountain Cascade, Inc. (the “Company”) recognizes the importance of providing a safe work environment and refuses to tolerate any form of violence in the workplace. In compliance with California OSHA guidelines and applicable law, the Company has developed this Workplace Violence Prevention Plan (“WVPP”) as part of its effort to prevent violent incidents from occurring.

All managers, supervisors and employees are responsible for implementing and maintaining our WVPP. The Company encourages employee participation in designing and implementing this program and will be scheduling meetings to finalize and implement the WVPP. The Company requires prompt and accurate reporting of all violent acts whether or not physical injury has occurred. The Company will not discriminate against victims of workplace violence.

A copy of this WVPP is readily available to all employees and from each manager and supervisor. This plan ensures that all employees, including supervisors and managers, adhere to work practices that are designed to make the workplace more secure, and do not engage in verbal threats or physical actions which create a security hazard for others in the workplace. All employees, including managers and supervisors, are responsible and accountable for using safe work practices, for following all directives, policies and procedures, and for assisting in maintaining a safe and secure work environment. The management of our establishment is responsible for ensuring that all safety and health policies and procedures involving workplace security are clearly communicated and understood by all employees. Managers and supervisors are expected to enforce the rules fairly and uniformly.

This WVPP will be reviewed and updated annually.

RESPONSIBILITY AND ACCOUNTABILITY:

The WVPP Administrator are Rickey Arslanian and Nikolas Antovich and they have the authority and responsibility for implementing the provisions of this program for the Company. All managers, supervisors and employees are responsible for implementing and maintaining the WVPP in their work areas and for answering employee questions about the program.

In addition, a WVPP Planning Group will be established to assess the vulnerability to workplace violence at our establishment and reach agreement on preventive actions to be taken. This group will be responsible for developing employee training programs in violence prevention and plans for responding to acts of violence. They will also audit our overall Workplace Violence Prevention Program.

COMPLIANCE:

All employees are responsible and will be held accountable for using safe work practices, for following all directives, policies and procedures, and for assisting in maintaining a safe and secure work environment. Managers, supervisors and employees will comply with work practices that are designed to make the workplace more secure, and will not engage in threats or physical actions which create a security hazard for others in the workplace. Managers and supervisors will:

- Advise all employees of the Workplace Violence Prevention Plan;
- Provide a copy of the policy to each employee and place a signed copy of the policy statement in each employee's personnel file;
- Evaluate the performance of all employees in complying with Company workplace security measures;
- Recognize employees who perform work practices which promote security in the workplace.
- Provide training and/or counseling to employees who need to improve work practices designed to ensure workplace security.
- Discipline employees for failure to comply with workplace security practices.
- Identify the manager(s) who will serve as the primary contact(s) for responding to an incident involving workplace violence or prohibited behaviors; and,
- Ensure that all employees understand their duty and obligation to consider any and all prohibited conduct or incidents of workplace violence as serious and are advised to seek assistance as soon as early warning signs are identified.

Managers and supervisors will maintain an open, two-way communications system on all workplace safety, health and security issues. Our establishment has a communication system designed to encourage a continuous flow of safety, health and security information between management and our employees without fear of reprisal and in a form that is readily understandable. Our communication system consists of the following items:

- New employee orientation on the Company's workplace security policies, procedures and work practices.
- Periodic review of our WVPP with all personnel.
- Training programs designed to address specific aspects of workplace security unique to the

Company.

- Regularly scheduled safety meetings with all personnel that include workplace security discussions.
- A system to ensure that all employees, including managers and supervisors, understand the workplace security policies.
- Posted or distributed workplace security information.
- A system for employees to inform management about workplace security hazards or threats of violence.
- Procedures for protecting employees who report threats from retaliation by the person making the threats.

HAZARD ASSESSMENT

The Workplace Violence Prevention Group will perform workplace hazard assessment for workplace security in the form of record keeping and review, periodic workplace security inspections, and a workplace survey. The assessment group will identify workplace violence and security issues and make recommendations to management and employees.

“Workplace violence” is defined broadly as any act of violence or threat of violence that occurs in a place of employment. Cal/OSHA separates workplace violence into three main categories:

- Type I - *An incident where the assailant has no legitimate relationship to the workplace and usually enters the workplace to commit a robbery or other criminal act.*
- Type II - *An incident involving a violent act by a recipient of a service provided by an employer.*
- Type III - *An incident committed by a current or former employee, supervisor, or manager,*
- Type IV - *An incident committed by someone who does not work at the employer, but has or is known to have had a personal relationship with an employee.*

For the purposes of this policy, workplace violence includes, but is not limited to, violence, direct or indirect threats of violence, intimidation, physical fighting, or unauthorized possession of weapons.

The Company takes the issue of workplace violence very seriously. For this reason, conduct which is prohibited includes, but is not limited to violence, direct or indirect threats of violence, intimidation, physical fighting or unauthorized use or possession of weapons.

Incidents of workplace violence have increased in recent years and are frequently caused by anger and/or frustrations, obsessive love affairs, and domestic disputes that spill over into the workplace.

A threat is the clearest indicator of potential violence (includes direct threats, veiled threats and threats conditioned upon other actions). For example, if an employee receives a phone call of a volatile nature, that should be reported to a supervisor.

Other signs or behaviors which may be identified along with threats may include an individual who...

- is unusually argumentative
- doesn't cooperate well with others

- has a problem with authority figures
- frequently blames others for his or her problems
- displays marked changes in work patterns such as tardiness or absenteeism
- demonstrates extreme or bizarre behavior
- frequently appears depressed
- is involved in alcohol or drug abuse
- has a history of violence
- exhibits a preoccupation with weapons and their use to harm self or others

It is certainly possible that a potentially violent individual may not exhibit all of the signs listed above. At the same time, caution must be exercised to avoid overreacting. For example, just because an employee is argumentative does not necessarily mean that the employee will also become violent.

RECORD KEEPING AND REVIEW:

Note: Care must be taken to ensure appropriate confidentiality of medical and personnel records, as required by the ADA (Americans with Disabilities Act) and other applicable regulations or policies.

The Company will record every incident of workplace violence in a violent incident log that will include the following information:

- Date, time, and location of the incident
- Detailed description of the incident
- Classification of who committed the violence
- The type of violence, including whether it was a physical attack or threat, whether weapons or other objects were involved, or whether it was a sexual assault
- Consequences of the incident including whether security or law enforcement was contacted and whether actions were taken to protect employees from a continuing threat.

This log will be maintained for five years and will omit all personal identifying information. Employees are entitled to view and copy the log within 15 calendar days of a request. Periodic updates and reviews of the following workplace violence reports and records will be made:

- Occupational Safety and Health Administration (OSHA) logs
- Workplace violence incident reports
- Information compiled for recording assault incidents or near-assault incidents (i.e., Threat & Assault Log)
- Insurance records
- Police reports
- Workplace survey
- Accident investigations
- Training records
- Grievances
- Inspection information
- Other relevant records or information

WORKPLACE SECURITY INSPECTIONS:

Periodic inspections to identify and evaluate workplace security hazards and threats of workplace violence will be performed according to the following schedule:

- Quarterly or as determined by the Company;
- When we initially established our WVPP;
- When new, previously unidentified security hazards are recognized;
- When occupational injuries or threats of injury occur; and
- Whenever workplace security conditions warrant an inspection.

Periodic inspections for security hazards consist of identification and evaluation of workplace security hazards and changes in employee work practices, and may require assessing for more than one type of workplace violence. Our establishment performs inspections for each type of workplace violence by using the methods specified below to identify and evaluate workplace security hazards.

TYPE ONE INSPECTIONS:

Inspections for workplace security hazards from violence by strangers (Type 1) include assessing:

- The exterior and interior of the workplace for its attractiveness to robbers.
- The need for security surveillance measures, such as mirrors or cameras.
- Procedures for reporting suspicious persons or activities.
- Posting of emergency telephone numbers for law enforcement, fire and medical services where employees have access to a telephone with an outside line.
- Limiting the amount of cash on hand.
- Staffing levels during evening hours of operation and at other high risk times.
- The use of work practices such as "buddy" systems, as appropriate, for identified risks (e.g., walking employees to their cars or mass transit stops at the end of the work day).
- Adequacy of lighting and security for designated parking lots or areas.

TYPE TWO INSPECTIONS:

Inspections for workplace security hazards from violence by customers or clients (Type 2) include assessing:

- Access to, and freedom of movement within, the workplace.
- Adequacy of workplace security systems, such as door locks, security windows, physical barriers and restraint systems.
- Frequency and severity of threatening or hostile situations that may lead to violent acts by persons who are service recipients of our establishment.
- Employees' skill in safely handling threatening or hostile service recipients.
- Effectiveness of systems and procedures to warn others of a security danger or to summon assistance, e.g., alarms or panic buttons.
- The use of work practices such as "buddy" systems, as appropriate, for identified risks (e.g., walking employees to their cars or mass transit stops at the end of the work day).
- Adequacy of lighting and security for designated parking lots or areas.
- The availability of employee escape routes.

TYPE THREE INSPECTIONS:

Inspections for workplace security hazards from violence by co-workers (Type 3) include

assessing:

- How well the Company's anti-violence policy has been communicated to employees, supervisors and managers.
- How well the Company's management and employees communicate with each other.
- How well Company employees, supervisors and managers know the warning signs of potential workplace violence.
- Access to, and freedom of movement within, the workplace by non-employees, specifically recently discharged employees.
- Frequency and severity of employee-reported threats of physical or verbal abuse by managers, supervisors or other employees.
- Any prior violent acts, threats of physical violence, verbal abuse, property damage or other signs of strain or pressure in the workplace.
- Employee disciplinary and discharge procedures.

TYPE FOUR INSPECTIONS:

Inspection for workplace security hazards from violence by personal relations (Type 4) include assessing:

- Access to, and freedom of movement within, the workplace by non-employees, specifically personal relations with whom one of our employee's is having a dispute.
- Frequency and severity of employee-reported threats of physical or verbal abuse which may lead to violent acts by a personal relation.
- Adequacy of workplace security systems, such as door locks, security windows, and physical barriers.
- Any prior violent acts, threats of physical violence, verbal abuse, property damage or other signs.
- The use of work practices such as "buddy" systems, as appropriate, for identified risks (e.g., walking employees to their cars or mass transit stops at the end of the work day).
- Adequacy of lighting and security for designated parking lots or areas.
- Warnings or police involvement to remove personal relations of employees from the worksite and effectiveness of restraining orders.

TRAINING AND INSTRUCTION:

The Company has established the following policy on training all employees with respect to workplace violence and security. All employees, including managers and supervisors, shall have training and instruction on general and job-specific workplace security practices. Training and instruction shall be provided when the WVPP is first established and periodically thereafter. Training shall be provided to all new employees and to other employees for whom training has not previously been provided. It shall also be provided to all employees, supervisors, and managers given new job duties for which specific workplace security training for the job duty has not previously been provided. Additional training and instruction will be provided to all personnel whenever the employer is made aware of new or previously unrecognized security hazards. General workplace violence and security training and instruction includes, but is not limited to, the following:

- Explanation of the Workplace Violence Prevention Program including measures for reporting any violent acts or threats of violence.

- Recognition of workplace security hazards including the risk factors associated with the four types of violence.
- Measures to prevent workplace violence, including procedures for reporting workplace security hazards or threats to managers and supervisors.
- Ways to defuse hostile or threatening situations.
- Measures to summon others for assistance.
- Employee routes of escape.
- Notification of law enforcement authorities when a criminal act may have occurred.
- Emergency medical care is provided in the event of any violent act upon an employee.
- Post-event trauma counseling for those employees desiring such assistance.
- Information about the Company's violent incident log and how employees can obtain a copy.

In addition, the Company provides specific instructions to all employees regarding workplace security hazards unique to their job duties, to the extent that such information was not already covered in other training.

REPORTING AND INCIDENT INVESTIGATION:

Even though workplace violence is increasing across the nation, Company employees can decrease the odds of such occurrences if angry outbursts are not ignored and any violence or threat of violence that occurs in the workplace is reported in accordance with the following provisions of this WVPP:

Employees may report incidents of violence or threats of violence to their immediate supervisor, another supervisor, a member of the Workplace Violence Prevention Group or Human Resources.

It is critical that any incident of violence or threat of violence is reported and not ignored. For this reason, the Company requires employees to report such incidents, including, but not limited to:

- Any employee while in the workplace or while on Company business who observes or hears a person (e.g., employee, visitor, contractor, vendor, client patient, etc.) who threatens, attempts, or commits a prohibited behavior or act of violence shall immediately notify his/her immediate supervisor or the department's designee for this purpose.
- Any employee who observes or becomes aware of any unauthorized possession, use, transferring, or selling of a weapon at a Company work site or any other location while any person is on Company business shall immediately report this to his/her immediate supervisor or to the department's manager designated for this purpose.

The Company will make every reasonable effort to maintain the confidentiality of individual(s) reporting incidents of workplace violence. No guarantees can be made in all situations as the identity of the reporter may be critical to the investigation and/or incident.

Company procedures for investigating incidents of workplace violence, threats, and physical injury include:

- Reviewing all previous incidents.
- Visiting the scene of an incident as soon as possible.

- Interviewing threatened or injured employees and witnesses.
- Examining the workplace for security risk factors associated with the incident, including any previous reports of inappropriate behavior by the perpetrator.
- Determining the cause of the incident.
- Taking corrective action to prevent the incident from recurring.
- Recording the findings and corrective actions taken.

Hazards which threaten the security of workers shall be corrected in a timely manner based on severity when they are first observed or discovered.

The Company will maintain a copy of all workplace violence incident investigations for five years.

HOW TO RESPOND TO INCIDENTS OF WORKPLACE VIOLENCE/RELATED BEHAVIOR:

The first obligation of Company employees is to assist in maintaining a secure and safe workplace by adhering to the WVPP.

In the event of an incident or violation of the WVPP, employees are advised to adhere to the following priorities, if possible.

RESPONSIBLE PERSON	ACTION
EMPLOYEES	<ul style="list-style-type: none"> • <i>Get help in securing the environment and obtain medical aid for any victims.</i> • <i>Dial 911 for local police. Request paramedics or ambulance services, if needed.</i> • <i>Follow police/sheriff/security instructions and directions for personal safety and for securing the work environment.</i> • <i>Notify the immediate supervisor or the manager designated for this purpose.</i>
DESIGNATED MANAGER	<ul style="list-style-type: none"> • <i>At the time you are notified of an incident, quickly determine the status of the situation.</i> • <i>Have the appropriate steps been taken by employees to secure the environment, obtain medical aid, and to obtain security/law enforcement assistance?</i> • <i>Quickly gather as much factual information as possible (what, where, when, how, who, why) in preparation for the next step.</i> • <i>Evaluate the situation and determine appropriate course of action.</i>

DEFINITIONS:

- **Intimidation:** *Inspiring fear in a person by a show of force or a promise of force.*
- **Physical Fighting:** *The act of aggression or initial force in physically contending with another with the intent to overpower and/or to cause harm.*
- **Threat:** *An expression of a direct (intent to take an action) or indirect (what could happen or that something could happen) intention to inflict pain, injury or punishment upon another person or property.*
- **Violence:** *Aggressive acts or initiation of physical force exerted for the purpose of violating, damaging or abusing others.*
- **Weapons:** *An instrument, article or substance, which in the possession of an employee or under the circumstances of which it is used or is threatened to be used, is readily able of causing physical injury or death.*

VIOLENT INCIDENT LOG

To be used for each incident or alleged incident of workplace violence

Date of Incident: _____

Time of Incident: _____

Location of Incident: _____

Who Committed the Violence: _____

Against Whom was the Violence Committed: _____

Type of Violence:

___ Physical Attack or Threat

___ Verbal Attack or Threat

___ Weapon Used or Threatened to be Used. If so, what weapon:

___ Sexual Assault

Corrective Actions Taken:

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Was Security or Law Enforcement Contacted: _____

Consequences of Incident:

NOTE: This form is to be retained for 5 years after the incident with personal identifying information redacted. Employees are entitled to view and copy the log within 15 calendar days of a request.