CONSTRUCTION | PRESERVATION | MAINTENANCE

Health & Safety Plan

For Accident Prevention

Sean Rankin, Safety Administrator
CPM CONSTRUCTION

Revised 8/28/23

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Supplemental Forms:

1. Worker Orientation Form
2. Safety Meeting / Training Sign-In Roster
3. Workplace (and Construction Site) Inspection Form
4. Fall Protection Plan Template
5. Mishap Report (Accident, Injury, Near-Miss)
6. Disciplinary / Corrective Action Notice
7. Equipment Inspection Form
8. Confined Space Entry Procedure / Permit
9. Lock-Out / Tag-Out

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Plan Approval Signature Sheet:

Overview:

A copy of this H.A.S.P. (Health and Safety Plan) will be made available to all CPM employees. All employees are required to review and acknowledge the H.A.S.P. as it pertains to their work.

This H.A.S.P. will be reviewed by all employees at point of hire, or when the plan changes, or when relevant job duties change.

- This H.A.S.P. shall be available to all employees upon request
- This H.A.S.P. will be updated as needed to maintain regulatory compliance

Contact the Plan Administrator with any questions, concerns, or comments.

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Plan Approval:
This Health and Safety Plan has been reviewed and approved by the following individual(s):

Name: _____ Title: _____

Sign: _____ Date: _____

Name: _____ Title: _____

Sign: _____ Date: _____

Company Information:

CPM has established a prominent reputation in the Pacific Northwest by partnering with companies to provide full-service general contracting services. Our ability to consistently provide exceptional quality contracting services for outstanding value has resulted in numerous, long-standing relationships with repeat clients. We have found that close internal and external collaboration, combined with the active engagement of company leadership, invariably leads to superior results.

Since 1989 CPM has partnered with local companies, building a proud reputation as a full-service general contractor. Our record of achieving excellence through teamwork has solidified our reputation as a trusted partner to a wide range of property owners, property managers, investors, architects and corporate clients. We listen to our customers, attend to the details and provide a level of service that exceeds expectations.

Due to our long-term experience and relationships, we have developed the skill and flexibility to exceed our customers' expectations time and again, whether providing general contracting, preservation or maintenance.

Statement of Safety & Health:

It is the policy of CPM to provide a safe and healthful environment for our employees and the public. It is also CPM's policy to maintain all CPM-owned facilities in a manner that minimizes the loss or damage of assets. Opportunities for continuous improvement will be pursued by integrating safety & health considerations into all aspects of strategic planning, business decisions and activities.

CPM will, at minimum, comply with safety & health laws and regulations governing our work activities. Additionally, all employees are expected to support the CPM's Safety and Loss Control programs, policies, and procedures for a safe and incident-free workplace. Individually and collectively, all employees have a role and responsibility in providing a safe, healthful and productive workplace for themselves, as well as maintaining safe and efficient services to the general public.

The intent of this H.A.S.P. is to increase awareness of workplace related risks while safeguarding protection of employees, subcontractors and visitors from potential injury and illness. As CPM maintains overall responsibility for this H.A.S.P., the rules, policies, procedures and guidelines therein shall be firmly enforced up to, disciplinary action including the removal of any person(s) from the workplace, or work stoppages necessary for corrective action.

CPM practices the "safety hierarchy of controls" concept, mitigating hazards through:

1. Engineering controls (removing hazards from the workplace)
2. Administrative controls (keeping people away from hazards)
3. Personal Protective Equipment (using appropriate PPE when hazards cannot be eliminated)

Responsibilities and Lines of Authority:

WAC 296-800-120 & 296-155-100: Lines of authority as applied to the governing and enforcement of health and safety, including those of the CPM, State regulations, OSHA and other applicable agencies, are as follows:

- All staff shall be directly subordinate to CPM's Safety Administrator as it relates to this H.A.S.P.
- All staff shall have the authority to communicate with CPM's executives for safety related concerns.

Safety Administrator & Senior Management:
The Safety Administrator and senior level management make certain that policies and procedures for safety and health are established, promoted, enforced and maintained; and ensure appropriate training needed for safe work practices is completed by all employees. They receive safety updates and reports from all staff, including project level management, informing them of safety concerns, accidents, injuries, and/or information needed to maintain jobsite safety and compliance. The Safety Administrator and all senior management have the authority to stop work or any phase of a project if he/she deems an activity unsafe, or if policies and procedures are not clearly written and in effect.

Project Managers:
Project Managers are accountable for safety and health at jobsite locations. They receive reports and feedback from the Safety Administrator and Department Supervisors. Project Managers maintain an "open door" policy for any staff member to express safety concerns. Project Managers have the authority to stop work or any phase of a project if he/she deems an activity unsafe, or if policies and procedures are not clearly written and in effect.

The Project Manager:

- *Is familiar with Safety and Health regulations related to the project*
- *Has the authority to remove any person and/or contractor from a project for unsafe work practices*
- *Ensures the safety staff and project leadership are empowered to enforce and maintain safety policies*
- *Monitors and ensures the safety staff are fulfilling the duties outlined in their job description and in fulfilling contract requirements*
- *Attends safety briefings with supervisors, contractors, and field personnel*
- *Ensures that Site Supervisors are aware of and comply with safety policies*
- *Reviews all accidents/incidents and ensures corrective action is taken*
- *Reports deficiencies of the project safety program (including poor performance of the safety staff to corporate management, and ensures any deficiencies are corrected*

Employee Supervisors (Department Managers, Superintendents, Foreman):
Employee Supervisors, as well as and all Managers at CPM are accountable for safety and health at all workplace locations. They receive reports and feedback from all employees, maintaining an "open door" policy for any staff member to express safety concerns. All Supervisors have the authority to stop applicable work if he/she deems an activity unsafe, or if policies and procedures are not clearly written and in effect.
Supervisors:

- *Are responsible and accountable for safety compliance in their line of authority*
- *Are familiar with, and enforces safety and health regulations that apply to operations within his/her area of responsibility*
- *Has the authority to stop work and/or may remove any person and/or contractor from a work activity or a project for unsafe work practices*
- *Works with employees to monitor and enforce safety policies, as well as assist with safety plan updates*
- *Assures that persons under his/her supervision use safety devices and proper personal protective equipment*
- *Instructs all persons within area of responsibility in job safety and health requirements and requires compliance of personnel*
- *Conducts safety meetings/briefings with workers under his/her supervision as needed or required*
- *Assists the Safety Administrator with investigations and treatment of mishaps, injuries, accidents, reporting, and the implementation of corrective action*
- *Assists with regular safety and health inspections of his/her work areas to ensure no unsafe conditions exist*
- *Reports to the Safety Administrator on any corrective actions needed which is beyond his/her control*

Safety Program Conflict Resolution:
<u>If any employee or supervisor disagree regarding a safety concern and cannot reach an effective, immediate solution, the related work shall be halted until senior level management is notified for further direction.</u>

- ✓ In no case will any safety regulation be ignored, overridden, or otherwise disregarded by any level of management

Only in circumstances where regulations permit professional judgment (from a Qualified or Competent Person) shall an employee concern be annulled, and this annulment can only come from corporate level management and must be in writing to the employee.

Risk Management Process and (Employee) Compliance:

To achieve the safety standards set forth in this H.A.S.P., all levels of management shall be held accountable for their participation and performance as it relates to their duties. Failure to comply is sufficient grounds for disciplinary action, removal from a project, or termination of employment. The following policies shall be prescribed to ensure contract and safety compliance:

Administrative Controls:

- All employees shall work in accordance with this H.A.S.P. as well as applicable job specific hazard analysis and safety regulations required by governmental agencies
- Project oversight shall have the authority to enforce compliance with safety polices

Employee Responsibilities:

- If any worker believes an activity is considered non-compliant or unsafe, that worker shall have the authority to stop the activity until it has been addressed with their supervisor and/or the safety staff, and he/she deems that adequate corrections are made
- Safety incidents, accidents, and injuries shall be reported to a worker's supervisor, the Safety Administrator and/or other management immediately, or as soon as feasible

Worker Qualifications (Reference WAC 296-155-012):

- CPM will have a safety representative or designated Qualified/Competent person assigned for all definable features of work.

A qualified Person is one who, by possession of a degree, certificate, or professional standing, and has extensive knowledge, training and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, work, or project.

A Competent Person is 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 action to eliminate them.

- ✓ Competent Person(s) shall be utilized in writing hazard analysis if/when applicable to a specific phase of work.

- All employees must be "Ready, Willing and Able" to safely perform their duties
- Contact numbers for Emergency Services, Senior Managers and the Safety Administrator and shall be posted on the safety bulletin board or other areas necessary for employee access

Workplace Hostility:

Any form of workplace hostility will not be tolerated. A person who demonstrates aggression, threatens, intimidates or assaults another person will be subject to disciplinary action including removal from the workplace and/or termination of employment. Workplace violence may result in criminal prosecution.

Examples of unacceptable behaviors include, but are not limited to:

- Any verbal or physical threat of harm to another person
- Unsolicited bullying or harassment with the intent to cause emotional or physical harm
- Destruction of personal property
- Violent conduct or behavior that could be interpreted as having the potential for violence, such as hitting, pushing, grabbing or throwing objects
- Any physical assault
- Comments or conversation about weapons and violence that could easily be interpreted as implied threats, or are intended to intimidate, or have the impact of intimidating others

Workplace hostility event reconciliation:
Bystander employees shall not place themselves in harm's way to mitigate a hostile situation.

- Notify applicable supervisors including the assigned Project Manager and Safety Administrator.
- Separate instigating party
- If needed, notify emergency services

The Safety Administrator, Project or Department Manager and Human Resources shall be immediately notified for further direction.

Drug and Alcohol Policy:

WAC 296-800-11025: Any person at company locations or associated with any CPM workplaces to be under the influence of, or consuming alcohol, narcotics, intoxicants or similar mind-altering drugs shall be immediately removed from the premise or project. The use or consumption of such substances shall be immediate grounds for termination.

- ✓ Workers conducting business after normal hours and/or using company vehicles are subject to this policy

Any person under a physician's treatment and taking prescribed narcotics that may prevent or limit a worker from being able to perform their duties shall provide a medical clearance statement to their supervisor.

Drug Testing Occurs:

- At point of hire
- Upon a serious mishap or recordable injury
- Upon commercial driving accidents (CDL driver in CPM commercial vehicle)
- Pursuant to other governmental regulations (DOT)
- Pursuant to reasonable suspicion

Supervisor Responsibilities

- Advise employee if controlled substance and alcohol testing is required
- Notify Human Resources (or Safety Administrator) that a referral for controlled substance and alcohol testing has been done
- If Supervisor has any questions about whether a drug test is required, check with the Human Resources Department or Safety Administrator

Safety Committee:

WAC 296-800-130: CPM shall have a safety committee, delivering a sincere and cooperative effort between employees and management by promoting safety and health in CPM workplaces. The safety committee assists employees and management by making recommendations for better safety behaviors, programs, polices, and enforcement.

The committee has employee-elected and employer-selected members as follows:

- The number of employee-elected members will equal or exceed the number of employer-selected members
- The term of employee-elected members must be a maximum of one year. (There is no limit to the number of terms a Bargaining Representative can serve.)
- If there is an employee-elected member vacancy, a new member must be elected prior to the next scheduled meeting

An elected chairperson will determine how often, when, and where, the safety committee will meet.
The Safety Committee will cover these topics (at a minimum):

- Review safety and health inspection reports to help correct safety hazards
- Evaluate the accident investigations conducted since the last meeting to determine if the cause(s) of the unsafe situation was identified and corrected
- Evaluate workplace accident and illness prevention program and discuss recommendations for improvement

The Committee Chair will ensure:

- Attendance is documented
- Subjects discussed are documented, relevant and appropriate
- Meeting minutes include dates & times
- Minutes from each safety committee meeting are available for review by government safety and health personnel

Employer Selected: _____

Employer Selected: _____

Employee Selected: _____

Employee Selected: _____

The safety committee shall meet as determined by the Committee Chair, at least quarterly.

Records of safety committee meetings shall include the following information:
Records of the meeting are located at: _____
Records shall be maintained for three years.

Subcontractor Safety Plan & Compliance:

Subcontractors may be required to provide current insurance information and a copy of their most recent EMR (NCCI Rating sheet). If a Subcontractor has a poor safety record and/or has received formal notices of safety non-compliance, further details may be requested. An evaluation of the Subcontractor's safety program may be completed by CPM's Safety Administrator.

In addition to maintaining compliance of safety regulations required by governmental agencies, Subcontractors shall follow the policies set forth within this H.A.S.P. However, in such cases where a subcontractor may perform a large portion of a contract, a high-risk activity, or a complex job requiring specialized knowledge to recognize hazards, a Subcontractor's "job specific" accident prevention plan may be used in conjunction with this H.A.S.P. to better mitigate hazards. If a Subcontractor's safety policy contradicts this H.A.S.P., the more stringent guidelines shall apply.

Subcontractor Onsite Supervisor(s):

- Completes site-specific safety orientations with their employees
- Shall hold and/or attend regular safety meetings and work coordination meetings
- Is familiar with this H.A.S.P., and enforces safety rules applicable to the work they supervise
- Works with CPM Safety Administrator to monitor and enforce safety policies
- Assures that persons under his/her supervision use safety devices and proper PPE
- Conducts & documents safety briefings with workers under his/her supervision as required
- Assists CPM safety staff with investigations and treatment of injuries, accidents, reporting, and the implementation of corrective action
- Conducts and documents regular (at least weekly) Safety and Health inspections of his/her work areas to ensure no unsafe conditions exist
- Inspects tools & equipment daily and/or before use, or as required by the manufacturer
- Reports to CPM's Safety Administrator, any corrective actions needed which is beyond his/her control

Subcontractor(s) shall present the following (as requested):

- Accident Prevention Plan (tailored to their scope of work, including specific emergency procedures)
- Name and contact information of their "Designated Safety Representative" for this project
- Name of "Competent Person(s)" who will be on site for each feature of work
- SDS (Safety Data sheets) for this project only
- Legitimate training records for "Competent/Qualified" workers and/or workers performing tasks which require credentials such as, confined space entry, personnel lifts, fall protection, rigging, scaffold use, fire-watch, fork-lifts, 1st Aid, etc.
- Job Hazard Analysis for each definable feature of work or provide pre-task plans

Worker Training:

WAC 296-800-14020 & 296-155-100: Work requiring training such as (but not limited to) materials handling, ladder use, forklift operation, hot-work, hand and power tool use, machine / equipment operation, hazard communication, respiratory protection, confined space entry, fall protection, or rigging will not be completed until such training has occurred and workers can furnish (current) proof of that training.

The Safety Administrator will ensure the collection and verification of training records as needed for compliance. Workers will be expected to demonstrate a reasonable level of competency in the recognition, avoidance, and prevention of unsafe conditions during all work activities. 1st Aid/CPR training will be required for the Safety Administrator and at least one additional employee on each shift.

Any significant training facilitated by CPM's Safety Administrator or other personnel shall only be allowed if the trainer is qualified or competent in the subject matter they are teaching. This may include competent person training for: Respiratory Protection, Confined Space Entry, Fall Protection, Use of Mechanized Equipment, Hoisting & Rigging, Forklifts, Scaffolds, Etc. (Safety meetings do not meet the requirements for training.)

Certifications or documentation demonstrating competency or proof of training will not be accepted by CPM if the training is not from a qualified source. Employees shall be trained prior to performing any hazardous task.

Disciplinary Procedures for Noncompliance:

WAC 296-800-14020**:** When unsafe work practices (violations) occur by any CPM employee or sub-contractor employee, the Safety Administrator (with participation of the employee's supervisor and/or a corporate official) will investigate to determine if the violation was due to faulty equipment, poor methodology, misunderstanding of product or equipment use, lack of education or training, negligence, poor direction on the part of another, or lack of diligence.

Depending on the severity of the violation, reason, cause and/or fault, the Safety Administrator, employee's supervisor, and/or CPM corporate official will take actions to ensure the violation is not repeated. These actions may include interviews, reporting, written notice of violation (signed by parties involved), additional training requirements, equipment repair or replacement, or removal of that employee, without pay, for a time based upon CPM's discretion.

The Safety Administrator, employee's supervisor and/or other senior manager shall be involved in deliberations and when applicable, re-education of the worker. If suspension or re-education is required, a worker may not be allowed to return if sufficient corrective action cannot be demonstrated, and/or documentation of necessary re-education is not provided.

Workplace Safety Orientations & Personal Protective Equipment (PPE) Requirements:

WAC 296-800-14005 & 296-155-110: Safety Orientation for Employees:
All employees shall receive an on-the-job review of the practices necessary to perform their initial job assignments in a safe manner. Employees on construction projects shall receive additional orientations for the specific project on which they are working.

Worker orientations will incorporate (as applicable):

- Acknowledgment and understanding of this H.A.S.P.
    - Identification of worker's rights, duties and responsibilities
    - Chain of Command (Lines of Authority)
- Emergency Protocols… How and When to Report: Injuries, Accidents, Mishaps, Fire, Spills, Etc.
- Location of 1st Aid facilities, including 1st aid kits and eye-wash
- PPE requirements (See Below)
- Hazard Communication (Potential exposure and controls from hazardous chemicals, gasses, etc.)
- Weather Exposure (Heat & Cold Related Illnesses)
- Workplace Violence policy
- Location of restroom(s)
- Location and availability of drinking water
- Drug & Alcohol policies
- Waste Disposal, Housekeeping & Environmental Concerns
- Disciplinary policy/procedures for Non-Compliance
- Training Requirements (Trade specific training shall be administered prior to performing hazardous tasks)
- Work area, tool, equipment, and PPE inspection requirements
- Job Hazard Analysis reviewed for specific features of work (if applicable)

PPE Use and Requirements:

- The Safety Administrator (with assistance from supervisors) will complete a hazard assessment for applicable work areas to determine what PPE is essential.
- The use of personally owned PPE is prohibited unless approved by the Safety Administrator. CPM will provide all PPE as required.
- The Safety Administrator (with assistance from supervisors) will ensure the proper use of PPE, including initial training, inspections, and best practices; as well as, retraining if/when needed to confirm PPE is utilized correctly, properly fitted and sized, etc.
- PPE shall be inspected daily or prior to each use (by the user) and be maintained in "like new" condition. PPE users shall keep their PPE clean and sanitary. Defective PPE shall be removed from service and replaced immediately.

PPE for Workers Shall Include (at a minimum):

Head protection:

- Hard hats are required for employees exposed to overhead hazards such as crane work, overhead equipment, scaffolds, or other falling material

Safety Glasses:

- Safety glasses and/or face shields are required when using or operating hand/power tools, or when otherwise subject to flying debris

Shirts with Sleeves (additional covering)

- Minimum short sleeve shirts required. Long sleeves (made from material appropriate for the task) required when exposed to harmful chemicals, hot work, or sharp material

Foot Protection:

- Employees are required to wear appropriate footwear relevant to their duties. Excluding admin staff, work shoes/boots must be leather with non-slip soles, with no open toes. Tennis shoes are not permitted for construction work, or for work in fabrication, machine shops, warehouses or workshops

Long Pants:

- Shorts and excessively long or baggy pants are prohibited around construction activities or machinery

High Visibility Shirt, Coat or Vest:

- High visibility garments are required while working adjacent to moving equipment (including forklifts and vehicles) or when spotting or signaling. ANSI Class 2 or higher (reflectorized) required in hours of darkness

Hand Protection / Gloves:

- (Appropriate) gloves are required as needed to protect hands from sharps, chemicals, heat, vibration, or weather

Hearing Protection:

- Required when operating motorized tools, equipment, hammering, pounding, or exposed to other noise above normal speaking volume. (See Hearing Conservation Plan)

Note: PPE is not required in administrative or leisure areas if no hazards are present.

Employers will pay for and provide PPE.

Exemption: Everyday clothing, such as long-sleeve shirts, long pants, street shoes, and work boots; and PPE that is lost or intentionally neglected.

Additional PPE such as respirators, electrical protection, fire retardant clothing, fall protection, etc. may be needed and/or required. Always refer to manufacturer's instructions and applicable sections of this H.A.S.P. for further direction. See the Safety Administrator or your supervisor for direction.

Visitors and Authorized Entrants

Visitors and Authorized Entrants are defined as temporary personnel who may enter CPM's workplaces but are not performing trade work. (Example: Suppliers, vendors, truck drivers, project management, administrators or inspectors.)

PPE requirements for Visitors and Authorized Entrants (All locations outside administrative areas):

Head Protection

- Hard hats are required when subject to overhead hazards

Safety Glasses

- Safety glasses required when potentially subject to flying debris

Shirts W/Sleeves

- Minimum short sleeve shirt required. Long sleeves (or appropriate covering) required when exposed to harmful chemicals, hot work, or sharp material

Foot Protection

- Open toed shoes are prohibited in construction areas

High Visibility Shirt, Coat or Vest

- ANSI Class II high visibility required while working in areas around moving equipment (including forklifts and vehicles)

Hand Protection / Gloves

- (Appropriate) gloves are required if needed to protect hands from sharps, chemicals, heat, vibration, or weather

Hearing Protection (if necessary)

- When exposed to noise from motorized tools, equipment, hammering, pounding, or other significant sound

PPE may be selectively omitted only upon management approval and if/when visitors being escorted are not subject to any applicable hazards.

This PPE policy has been reviewed and approved by senior management, thus ensuring the rules listed therein are followed and enforced.

Sign: _____

Date: _____

Safety Meetings:

WAC 296-800-130 & 296-155-110: Supervisor presented safety meetings including all employees will be conducted monthly in administrative offices, and/or weekly at project sites. Records of safety meetings shall include the following information:

- Meeting date
- Names of those attending
- Topics discussed and/or issues addressed including workplace inspection results, near misses, and corrective actions taken

For Construction Projects:
The designated project supervisor will conduct crew leader-crew safety meetings as follows:

- At the beginning of each job, and at least weekly thereafter
    - You must tailor crew leader-crew meetings to the particular operation

Crew leader-crew safety meetings must address the following:

- A review of any walk-around safety inspection conducted since the last safety meeting
- A review of any citation to assist in correction of hazards
- An evaluation of any accident investigations conducted since the last meeting to determine if the cause of the unsafe acts or unsafe conditions involved were properly identified and corrected

Note: Subcontractors and their employees may, with the permission of the general contractor, elect to attend the general contractor's safety meetings. However, it remains the responsibility of each employer to ensure that the requirements stated above are followed.

Workplace Safety & Health Inspections:

WAC 296-800-110: All CPM Workplaces will be periodically inspected for safety and health concerns with discoveries and corrections documented by the Safety Administrator or applicable Supervisor. Common workplace safety concerns such as maintaining clear access and egress routes, housekeeping, fall hazards, fire risks and extinguishing equipment, electrical, PPE requirements, lighting, tools, equipment operation, sanitation, chemical exposure, etc. shall be scrutinized throughout each inspection.

Machines and mechanized equipment, such as commercial vehicles, PPE, rigging, fall protection, ladders, scaffolds, load handling equipment, temporary electrical equipment, air sampling and testing equipment, etc. shall be inspected daily or prior to each use by the user, and removed from service immediately if defective.

WAC 296-155-110: Safety inspections on construction sites shall be completed at the beginning of each project and at least weekly thereafter. (Documented) inspections must be completed by at least one site supervisor and randomly selected worker.

- Any unsafe condition shall be corrected immediately or otherwise mitigated to protect workers.

Safety Bulletin Board:

WAC 296-800-19005 & 296-155-115: To encourage a safe and healthful working environment, a safety bulletin board shall be posted at all office locations (and project sites with eight or more persons) to increase awareness and communicate management's commitment to providing a safe workplace. https://www.lni.wa.gov/forms-publications/required-workplace-posters

Required Federal Safety Posters:
OSHA's "Job Safety & Health, It's the Law! https://www.osha.gov/Publications/poster.html
Other Required Documents:

- Citations and Notices from OSHA or other governmental agencies
- OSHA 300A Summary (Post no later than February 1 and must remain in place until May 1)
- Safety Committee Meeting Minutes / Toolbox Meeting Minutes

  - ✓ Employees will be encouraged to periodically view the board for safety educational materials such as posters or safety tips, and also to keep current with the latest information.
  - ✓ If a workforce includes non-English speaking employees, information shall be posted in their language.

Bulletin Boards will also include:

- Accident statistics such as the OSHA 300A summary (required to post Feb. 1 – April 30).
- Citations and notices (post for 3 working days or until all violations are corrected).
- Appeal of citations and notices (until appeal is resolved).
- Other safety educational materials.
- Emergency phone numbers.

Mishap, Incident & Injury Reporting:

WAC 296-800-14005 & 296-155-105 & WAC 296-155-110: Mishap and Injury Management:
Near Miss Examples:

- An accident where injury or property damage was likely but did not occur
- An event that should be investigated to minimize the likelihood of reoccurrence

Minor Mishap Examples:

- 1st Aid injuries not requiring medical care beyond 1st aid
- Property damage resulting in minimal cost

Near misses and minor mishaps shall be immediately reported, investigated and resolved by the Safety Administrator as follows:

- Determine all conditions and practices contributing to the event
- Evaluate the severity of the problem and potential of recurrence
- Communicate information to applicable supervisors and personnel exposed to similar hazards as soon as possible
- Document the event and develop and implement corrective actions as needed
- Report the event to Senior Management if necessary, to prevent reoccurrence, or upon request

No supervisor may decline to accept a report of a mishap from a subordinate.

Major Mishap Examples:

- Fatal injury/illness
- Permanent totally disabling injury/illness
- Recordable injuries (medical treatment beyond 1st aid)
- Three (3) or more individuals become ill or have a medical condition which is suspected to be related to a site condition, or a hazardous or toxic agent on the site
- Property damage with significant cost
- Loss time Injuries Illnesses and/or restricted/transfer
- Electrical – to include Arc Flash and electrical shock
- Uncontrolled Release of Hazardous Energy (includes electrical and non-electrical)
- Accident with Load Handling Equipment (LHE) or Rigging
- Fall-from-Height (any level other than same surface)

    - ✓ Supervisors are responsible for reporting all serious mishaps to the Safety Administrator as soon as possible after notification from the affected employee.
    - ✓ Except for rescue and emergency measures, a major mishap scene shall not be disturbed until it has been released by the Safety Administrator.

Major mishaps shall be immediately reported, investigated and resolved by the Safety Administrator, and the associated Supervisor as follows:

- Assist with, provide, or arrange for medical assistance for injured workers

The treatment of injured personnel shall precede all other work. Injured personnel requiring medical treatment will be transported to a designated medical facility by an CPM employee or emergency services.

- ✓ Injured personnel shall not transport themselves off site.

- Stop all work necessary to verify zero chance of immediate reoccurrence
- Notify any/all parties including emergency personnel necessary or as needed for assistance
- Evaluate the severity of the problem and overall potential for recurrence
- Report the event to the Safety Administrator and/or senior management as soon as possible
- Communicate information to applicable supervisors and personnel exposed to similar hazards
- Document the event per CPM policy (complete mishap report)
- Conduct a formal investigation including (Root Cause Analysis and contributing factors)
    - Answering… Who, What, Where, Why & When
- Collect Witness Statements. (Witness statements must be in writing)
- Determine and correct the conditions and practices contributing to the event

Upon completion of an investigation, the Safety Administrator shall prepare a corrective action plan to include (as applicable):

- Recommended disciplinary action
- Modification of hazard analysis or this H.A.S.P.
- Retraining of workers
- Replacement of tools and equipment
- Audit of subcontractor's safety programs and reporting requirements if applicable

Washington State Labor & Industries:

Report a Fatality or Severe Injury:

- All employers are required to notify L&I when an employee is killed on the job or suffers a work-related hospitalization, amputation, or loss of an eye. 1-800-423-7233
    - A fatality or in-patient hospitalization must be reported within 8 hours
    - An amputation or eye loss must be reported within 24 hours

Record Keeping:

WAC 296-800, 802 and 296-155: The Safety Administrator, Human Resources department, and/or senior management will ensure records are maintained adequately for employee and governmental review.

Records of hazard assessments, exposures, monitoring, accidents, injuries, safety procedures, inspections, spills, training, and other work practices are maintained at CPM's offices as follows:

Records maintained, at least 3 years:

- Worker Orientations
- Safety Committee records
- Safety meetings, hazard analysis, health and safety plans, and other miscellaneous documents
- Workplace safety assessments and inspections (including the name of the person(s) completing the inspection) location, hazards identified, and corrective actions taken
- Equipment testing and/or evaluation of procedures for emergencies, processes, or systems
- Disciplinary reports
- Training records (Including names, dates, times, and training provider's information)
- Respirator fit test records (or until the next fit test is administered, whichever is longer)
- Fire Extinguisher Service

Site-Specific records maintained, at least until the completion of the applicable project:

- Worker Orientations
- Safety assessments and inspections (including the name of the person(s) completing the inspection) location, hazards identified, and corrective actions taken
- Safety meetings, hazard analysis, health and safety plans, and other miscellaneous documents
- Testing results from exposure monitoring
- Training records (Including names, dates, times, and training provider's information)

Records maintained, at least 5 years:

- OSHA 300 logs

Records maintained indefinitely (Typically 30 years passed last date of employment):

- Accident and injury reports including investigation notes, witness statements, medical records, loss time, light duty restrictions, and fatalities
- Exposure monitoring for hazardous materials such as lead and asbestos
- Noise dosimetry monitoring
- Employee medical evaluations and surveillance (including employee respirator use and requirements)

Consult with legal counsel for additional recommendations.

Emergency Planning and Fire Prevention:

Responsibilities:
WAC 296-800-14005, WAC 296-155-17309 & WAC 296-155-110: The Safety Administrator and department supervisors will continually observe workplaces for hazards such as gas leaks, ignition sources, fires, flooding or earthquakes, and initiate controls to ensure the safety of workers and property. Employees will be responsible for contacting their immediate supervisor if they recognize or suspect a hazardous condition.

Prior to start of work, all employees shall:

- Identify the building exits and determine the nearest exit to their work location (Routes must be posted)
- Identify the 1st Aid station(s)
- Identify the fire alarm location(s)
- Recognize the locations of designated rally point(s)

In case of fire, gas leak, and/or emergency alarm: (Evacuating the building / project)

1. Activate the fire alarm if safe to do so
2. Exit the building immediately and proceed to: _____
3. When it is safe to do so, Dial 911 to report the emergency. Do not go to your vehicle
4. Each department manager (with everyone's assistance) shall complete a headcount. (Do not attempt to rescue unless it is safe to do so). Inform the fire department if personnel are unaccounted for
    a. Attempts to rescue missing persons shall not be permitted unless their exact location is known, and it does not place the rescuer is harm's way
    b. Communicate with co-workers if you must leave the muster area for any reason
    c. It shall be understood by all personnel that the use of portable fire extinguishers is voluntary
5. Do not re-enter the building / project until given permission by the fire department or trusted authority

The building fire alarm shall be operational at all times and maintained as required by State and Federal regulations.

Earthquake safety tips (recommended by the CDC)

- DROP down onto your hands and knees before the earthquake knocks you down. This position protects you from falling but allows you to still move if necessary.
- COVER your head and neck (and your entire body if possible) underneath a sturdy table or desk. If there is no shelter nearby, get down near an interior wall or next to low-lying furniture that won't fall on you, and cover your head and neck with your arms and hands.
- HOLD ON to your shelter (or to your head and neck) until the shaking stops. Be prepared to move with your shelter if the shaking shifts it around
- DO NOT run outside or to other rooms during an earthquake. You are less likely to be injured if you stay where you are.
- To reduce your chances of being hurt, take the following actions:
    - If possible, within the few seconds before shaking intensifies, quickly move away from glass, hanging objects, bookcases, china cabinets, or other large furniture that could fall. Watch for

falling objects, such as bricks from fireplaces and chimneys, light fixtures, wall hangings, high shelves, and cabinets with doors that could swing open.
    - If available nearby, grab something to shield your head and face from falling debris and broken glass
- DO NOT use the elevators. The electricity may go out, and the sprinkler systems may come on.
- If you are trapped, stay calm. Try to get someone's attention by tapping on hard or metal parts of the structure. Doing so may increase your chances of being rescued.

Fire Prevention:

Minor Fires:

A "minor" fire is considered:

- Not likely to spread
- Small enough to fit in a waste receptacle or less than twenty square feet
- The process of extinguishing does not place a worker in a life-threatening situation

Minor Fires (capable of being extinguished with a fire extinguisher):

- The individual who discovers the fire shall immediately extinguish the fire (if properly trained) and notify their supervisor and/or the Safety Administrator of the incident

A "major" fire is considered:

- All other fire

Major workplace fire hazards and potential ignition sources:

- Flammables used for fueling around running equipment
- Electrical equipment not properly grounded
- Welding and/or hot work activities without fire prevention controls
- Spilled fuel from leaks, etc.
- Shorts in wiring
- Smoking in non-designated areas

Fire Extinguishers (Reference WAC 800-300):

- Inside company-owned or leased buildings, fire extinguishers not less than 5lb, ABC Type, will be distributed for use by employees on Class A fires so that the travel distance to any extinguisher is 75 feet or less.
    - On construction sites, a fire extinguisher, rated not less than 5lb, ABC Type, shall be provided for each 3,000 square feet of the protected building area, or major fraction thereof. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet
    - A fire extinguisher, rated not less than 10lb ABC, will be provided within 50 feet of the location where more than 5 gallons of flammable or combustible liquids or 5 pounds of a flammable gas are used on a job site, and/or within 10 feet of hot-work activities
- Fire extinguishers shall be mounted, located, and identifiable so that they are readily accessible without subjecting employees to possible injury

- The Safety Administrator or other designated person shall conduct or verify monthly inspections and ensure the annual service of fire extinguishers is performed
    - Extinguisher must be replaced or recharged (hydrostatically tested) every six years (minimum)
- The PASS method will be used to extinguish the fire by those employees who have been properly trained.

P.A.S.S.:

- Pull -the pin
- Aim -the extinguisher at the base of the fire
- Squeeze -the handle
- Sweep –the spray from side to side

- All CPM Employees shall be trained and authorized for fire extinguisher operation.
    - Retraining will be completed at least annually.

Flammable / Combustible Chemical Storage:

- Flammable liquids shall be stored in closed containers or tanks when not in use
- Only approved (DOT, UL, etc.) containers will be used to store flammable or combustible materials
    - Not more than 25 gallons of flammable or combustible liquids may be stored in a room outside of an approved storage cabinet
    - Not more than 60 gallons of flammable, or 120 gallons of combustible may be stored in any one storage cabinet
    - Not more than three storage cabinets may be present in a single storage area.
        - Quantities in excess of the above shall be stored in an inside storage room constructed to meet the specifications for the particular stored material (e.g., paint) as set forth in Standard Methods of Fire Test of building Construction and Materials, NFPA 251- 1969
- Transfer of flammable liquids from one container to another shall be done only when containers are electrically interconnected (bonded).
- Areas in which flammable liquids are transferred at one time, in quantities greater than 5 gallons from one tank or container to another tank or container, shall be separated from other operations by 25-feet distance or by construction having a fire resistance of at least 1 hour. Drainage or other means shall be provided to control spills. Adequate natural or mechanical ventilation shall be provided to maintain the concentration of flammable vapor at or below 10 percent of the lower flammable limit

Handling Flammable Gases

- LPG cylinders will be placed on a firm foundation and secured in an upright position.
- All LPG cylinders will be equipped with valve-protection devices.
- LPG cylinders will be placed away from vehicular traffic.
- LPG cylinders will not be stored inside buildings.
- Acetylene bottles will be stored in the upright position and secured.
- When in transport or not in use, acetylene bottles will have caps in place.
- Oxygen cylinders must be stored at least 20 feet from acetylene cylinders.

Handling Flammable and Combustible Liquids

- During refueling operations, all engines and motors will be turned off and allowed to cool.
- Open flames or other ignition sources must be kept at least 50 feet away from flammable or combustible liquids.
- No smoking will be permitted during the fueling process.
- Portable containers being filled will be placed directly on the ground or a grounding strap attached to form a connection to ground.
- Health and physical hazards will be communicated to employees in accordance with OSHA's Hazard Communication Standard before the product is used.
- When flammable liquids and gases are being transported, all Department of Transportation rules will be followed.
- Transfer of flammable liquids from one container to another shall be done only when containers are electrically interconnected (bonded)
    - Exemption: Fueling equipment from portable containers of 5 gallons or less
- Portable fuel containers (5 gallons or less) shall be an approved type (DOT, UL) having a flash arresting screen, spring closing lid and spout cover and so designed that it will safely relieve internal pressure when subjected to fire exposure

Hot-Work / Fire Prevention Controls:

- Fires and open flame devices shall not be left unattended (barbecue).
- A good housekeeping program that provides for the prompt removal and disposal of accumulations of combustible scrap and debris shall be implemented on the site.
- No-smoking signs will be posted in all regulated areas.
- Hot-Work shall only be permitted in designated areas
    - Hot-work permits may be utilized as needed or required by CPM or Governmental agencies
- Only workers trained in fire extinguisher use will be allowed to use a fire extinguisher or participate in hot-work activities
- At a minimum: Long sleeves, leather gloves, and pants covering the tops of boots, and approved tinted eyewear designed for welding and/or torch work shall be worn at all times
- Oxygen and acetylene bottles shall not be left open while unattended, close valves, back-off regulators and bleed lines after use
- Oxygen and acetylene bottles shall be separated with an approved fire-resistant cart, or by at least 20' of separation
- Stored bottles shall have valve covers mounted
- Flammable materials shall not be brought into or stored in a welding area or within 100' of hot work unless otherwise shielded
- Combustible materials such as wood, cardboard and paper shall not be stored in weld shop or within 35' of hot work unless otherwise shielded
- Flammable and combustible liquids shall not be stored in areas used for exits, stairways, or safe passage of people

- Hot-work shall be performed far enough away from vegetation to eliminate the chance of fire
- At least 1, 10lb ABC fire extinguisher shall be within reach of all hot work activities
- Oily rags must be contained in non-flammable containers with a self-closing lid and disposed of daily
- Where combustible materials have been exposed to fire hazards, a fire watch shall be assigned to remain at the location for at least one (1) hour after the exposure has ended
- Equipment shall be bonded when fueling to prevent sparks from static
- Workers may not conduct hot-work alone
- All sources of ignition shall be prohibited in areas where flammable and combustible liquids are stored, handled, and processed. Suitable “NO SMOKING” OR “NO OPEN FLAME” signs shall be posted in all such areas

Smoking Areas:

CPM maintains a Smoke-Free Environment Policy in which smoking is prohibited at all workplace locations except designated smoking areas.

Otherwise, smoking is prohibited:

- In company owned vehicles and equipment
- Within 25 feet of all entrances, exits, accessibility ramps that lead to and from an entrance or exit, windows and air-intake vents

Medical Support, 1st Aid/CPR:

WAC 296-800-150: All personnel working on CPM projects shall be ready, willing and able to perform the duties assigned to them. CPM will consider factors that an individual worker may have such as physical limitations, agility, or loss of senses and accommodate that worker to as much as reasonably possible.

- CPM will have available at all worksites, where a crew is present, a person or persons holding a valid first-aid certificate (with AED if applicable) and bloodborne pathogen training
- All supervisors or persons in direct charge of one or more employees shall have a valid first-aid certificate (WAC 296-155-120)
- At least 1, Class A, Type III first aid kit shall be maintained in an area readily accessible to all workers
- A 15-minute eyewash station shall be maintained at any location where risk of eye injury exists
    - 32oz bottle eye-wash stations shall be located in every workplace, within 10 seconds from work activities, and not more than 50 feet of travel (WAC 296-155-125)

Minor injuries not requiring medical care shall be immediately treated and resolved by a supervisor or care provider as follows:

- Determine all conditions and practices contributing to the injury
- Evaluate the severity and potential of recurrence
- Assist with 1st Aid if needed (Use PPE for blood borne pathogen protection)
- Communicate information to applicable supervisors and personnel exposed to similar hazards
- Document the injury and develop and implement corrective actions as needed

Serious injuries requiring medical care shall be immediately treated and resolved by a supervisor or safety care provider as follows:

- Assist with, provide, or arrange for medical assistance for injured employees
    - ✓ *Note: The treatment of injured personnel shall precede all other work. Injured personnel requiring medical treatment will be transported to a designated medical facility by CPM or emergency services. Injured personnel shall not transport themselves off site*
- Stop all work necessary to verify zero chance of immediate reoccurrence
- Notify any/all parties including emergency personnel necessary or as needed for assistance
- Evaluate the severity of the injury and overall potential for recurrence
- Report the event to the Safety Administrator and the worker's Supervisor
- Communicate information to all applicable supervisors and personnel exposed to similar hazards
- Document the injury per CPM policy
- Conduct a formal investigation including:
    - ✓ Witness statements (must be in writing)
    - ✓ Determine the conditions and practices contributing to the injury. (Root Cause Analysis)

Designated Medical Facility information, map and driving directions shall be posted on safety bulletin board(s).

Illness Exposure/Prevention:

Responsibilities:
WAC 296-800-12005: The Safety Administrator will ensure precautions are utilized at all work locations in order to prevent contact with blood or other potentially infectious materials; as well as to prevent the spread of illness. All blood or other potential infectious material will be considered infectious.

Body Fluid Clean-Up:

- CPM will have available at all worksites, where a crew is present, a person or persons holding a valid first-aid certificate (with AED if applicable)
- All supervisors in direct charge of one or more employees shall have a valid first-aid certificate
- When exposed to body fluids, a proper disposal kit and/or suitable PPE shall be provided
    - Workers shall not expose themselves to body fluids without the proper PPE
- Workers who are uncomfortable cleaning up body fluids are not required to do so

Supervisors and workers shall take steps to protect themselves and others from illnesses (best practices):

- Hand washing facilities shall be available to employees who are exposed potentially infectious materials
    - Where soap and water are not readily available, medical grade hand sanitizer shall be provided
- Employees shall wash hands after using a restroom and whenever there is a likelihood of contamination
- Any contaminated skin area shall be washed (or sanitized) as soon as possible
- Workers shall not spit on any floors, materials or equipment
- Avoid close contact with people who are sick:
    - Stay home if/when you're sick and/or potentially contagious
    - Keep separate from people who are (potentially) contagious
    - Seek medical care reasonable to your symptoms
    - Cover your mouth and nose with a tissue when you cough or sneeze
        - Throw used tissues in the trash
        - Wash or sanitize your hands

Needle Stick and Sharps:
Risk to workers from needle stick injuries include hepatitis B and C, human immunodeficiency virus (HIV) and potentially, any other blood borne illness.
Controls to avoid accidental contact:

- Use adequate lighting where risk is present
- Assume any needle or sharp is contaminated
- Use a substantial container (glass, metal, or durable plastic) for containment
    - Use pliers, tongs, or tweezers to pick up the needle, syringe, or glass stem
    - Keep the needle pointed away from yourself and others
    - Put the needle, syringe, or glass stem in the container and close the lid securely
    - Dispose of needles and syringes per community guidelines

Outdoor Heat/Cold Exposure & Wildfire Smoke:

Responsibilities:
WAC 296-62-095 & WAC 296-62-085: The Safety Administrator and workplace supervisors will monitor workers and weather forecasts to obtain sufficient data to ensure the safety of employees from dangerous temperatures and/or smoke.

Note: Employees providing medical documentation showing illness or medication that interferes with normal body temperature may be excluded from work in unusually warm or cold weather.

Heat Stress Temperature Action Levels:

- 52 Degrees: Nonbreathing clothes including vapor barrier clothing or PPE such as chemical resistant suits
- 80 Degrees: All other clothing

Heat Stress Controls:
Project Supervisors will ensure the following:

- Employees will be monitored throughout the day for symptoms of heat illness
    - Close observation for 14 consecutive days is required for employees not acclimatized to the heat, including new employees, those returning from absences, and all workers during a heat wave
        - Close observation is defined as regular communication with employees working alone, such as by radio or cellular phone; a mandatory buddy system; or other effective means of observation
- Workers must be made aware of increased personal risk factors such as:
    - Age or overall health (including prescription drugs)
    - Level of acclimatization
    - Alcohol, energy drinks or coffee consumption
- Encourage employees to consume enough water or other acceptable beverages to ensure hydration
    - Employees are responsible for monitoring their own personal factors for heat-related illness including consumption of water or other acceptable beverages to ensure hydration

When temperatures are at or above 80 degrees:

- Provide enough cool water, available for each employee to drink at least one quart per hour
- Provide sufficient shade that is appropriate in size and location
- Encourage and allow workers to take preventative cool-down breaks as needed
    - There must be enough shade for all employees on a meal or rest period to sit fully in the shade, and it must be located close to where employees are working

At or above 90 degrees:

- A 10-minute (paid) cool-down break is required every two hours
- Close observation to help identify employees showing signs and symptoms of heat-related illness is mandatory

- At or above 100 degrees: Rest periods must be 15 minutes every hour

Note: Breaks can be taken at the same time with any meal or rest period under wage and hour laws, and must be paid unless taken during a meal period.

Employees:

- Stay hydrated… Drinking water shall be provided to all employees and available at all work locations
- Pay attention to coworkers… Look for signs of exhaustion, excessive sweating, dizziness or lack of focus
  - Assist with treatment if/when required
- Take additional breaks when performing strenuous tasks or wearing impermeable PPE
- Wear sunscreen and/or protective clothing to block excessive sunlight
- Seek medical attention if/when symptoms are severe

Symptoms of heat exhaustion include:

- headache
- dizziness or fainting
- weakness
- cold, pale, or clammy skin
- fast or weak pulse
- nausea or vomiting

Symptoms of heatstroke include:

- high body temperature
- hot, red, dry or moist skin
- difficulty breathing
- confusion
- seizure
- heavy sweating
- rapid and strong pulse and possible unconsciousness

Cold Stress:

Note: Someone with hypothermia may not be aware of his or her condition because symptoms may develop gradually. Signs and symptoms of hypothermia include:

- Shivering
- Slurred speech or mumbling
- Slow, shallow breathing
- Weak pulse
- Clumsiness or lack of coordination
- Drowsiness or very low energy
- Confusion or memory loss
- Loss of consciousness

Cold Stress Controls:

- Wear proper clothing as needed, including hats, gloves, extra layers, and have rain gear available
- Take additional breaks as necessary to stay warm
- Stay dry as much as possible AND have dry clothing available
- Seek medical attention if symptoms persist

Training:

Training must be completed at an appropriate time of year (at least annually) for heat/cold stress, including:

- Symptoms of heat and cold related health problems
- Contributing factors
- Prevention techniques
- Workplace controls (including company polices, supervisor and employee responsibilities)

Wildfire Smoke:

WAC 296-62-085: Smoke from wildfires may contain fine particles that can reach the deepest parts of the lungs, causing serious health problems. The Safety Administrator and/or project supervisors will monitor air quality and take action when outdoor workers are exposed to wildfire smoke and the Air Quality Index (AQI) is at 69 or higher. Employees shall notify their supervisor immediately if they are experiencing symptoms such as:

- Coughing, scratchy throat
- Stinging eyes
- Headaches
- Chest pain
- Asthma attacks
- Trouble breathing

If the AQI is at 69 or higher, measures will be taken to limit employee exposure to smoke by:

- Providing (at least annually) applicable training
- Reducing, rescheduling, or relocating work
- Providing enclosed buildings or vehicles where the air is filtered
- Reducing the work intensity or increasing rest periods
- Provide (for voluntary use) N95 respirators to exposed employees

If the AQI is at 101 or higher, measures will be taken to limit employee exposure to smoke by:

- Respiratory protection is required to be provided; use of respirators is voluntary
- Feasible wildfire smoke exposure controls must be established

If the AQI is at 301 or higher, measures will be taken to limit employee exposure to smoke by:

- Respiratory protection is required to distributed to individual employees; use of respirators is voluntary

- Feasible wildfire smoke exposure controls must be established
- If workers experience wildfire smoke symptoms requiring medical attention, relocate them to a space with clean air

If the AQI is at 500 or higher, measures will be taken to limit employee exposure to smoke by:

- Respiratory protection is required to be worn by affected employees (N95 or higher)
- Applicable Respiratory Protection Program is required

If/When particulates from wildfire smoke are measured at 555 micrograms per cubic meter (µg/m3) or higher, exposed employees will be required to wear suitable respiratory protection (APF 25 or higher).

- *Bandanas, scarves, facemasks, KN95's, or t-shirts worn over the nose and mouth will not adequately provide protection against wildfire smoke*

Severe Weather & Natural Disaster:

CPM's senior management, Safety Administrator and supervisors will assist employees with monitoring weather for reasonable assurance of wellbeing. Employees must monitor weather forecasts to obtain sufficient information to ensure their own safety, especially while traveling.

- Employees are responsible for contacting their immediate supervisor if they feel that traveling to work is not feasible because of poor (or unsafe) weather conditions.
    - Employees may choose to not attempt to travel to work if severe weather or a natural disaster is causing unusually unsafe travel conditions
- Employees must notify their supervisor of the circumstances as soon as possible
    - All workers shall be given adequate time by their Supervisors to make arrangements for safe travel or emergency preparedness due to severe weather or disaster.
- If severe weather or natural disaster occurs during work hours, employees must inform their Supervisor and take action necessary to return home safely or make additional arrangements

Reference the Emergency Planning and Outdoor Heat/Cold Exposure sections of this H.A.S.P. when applicable

Sanitation & Housekeeping:

WAC 296-800-22005 & 296-155-140 & WAC 296-155-020: The Safety Administrator and department supervisors are to ensure sanitation standards are upheld in all workplace locations. All Employees shall maintain their work areas in a neat and organized manner.

Hallways, doors, exits and stairways shall remain unobstructed. Fire extinguishers will be marked and unobstructed. Trash receptacles will be emptied daily, and recyclable material will be placed in the appropriate containers when a recycling plan is available. Offices and desks will be kept in an orderly manner. Cabinet

drawers will be closed when not in use. Tool trailers will be kept neat and tidy. All workplace areas being used for access/egress will be clear to allow for safe passage and transport of tools, materials and equipment.

Drinking Water:
All personnel will be provided an adequate supply of potable drinking water. Portable containers used to dispense potable water shall be capable of being tightly closed and equipped with a tap. Water shall not be dipped from containers. Any container used to distribute potable water shall be clearly marked as to the nature of its contents and not used for any other purpose. Disposable cups will be used. No sharing of cups is allowed, and cups will be kept in sanitary conditions.

Toilets:
All restrooms will be kept clean and sanitary with an adequate supply of toilet paper. All unisex toilets will have locking doors.

Food Receptacles:
Eating areas are to be kept clean and sanitary. Receptacles for food waste will be covered. Food waste receptacles will be collected each day and disposed of properly.

Washing Facilities:
At toilet locations, washing facilities shall be provided. Or, hand sanitizer must be available.

Smoking:
CPM maintains a Smoke-Free Environment Policy in which smoking is prohibited at all CPM work locations, except at designated smoking areas. Smoking is prohibited:

- In company owned vehicles and equipment
- Within 25 feet of all entrances, exits, accessibility ramps that lead to and from an entrance or exit, windows and air-intake vents

Waste Disposal:
Waste (trash) will be disposed of on a regular basis. CPM will use a designated company to collect and dispose of trash from their facility. Waste containers will be situated to prevent material from being scattered by wind or varmints and overflowing water.

Night Operations and Lighting:

Responsibilities:
WAC 296-800-210: The Safety Administrator and department supervisors will monitor work activities to ensure employees have the tools and equipment necessary to adequately light workplaces. Employees will be responsible for contacting their immediate supervisor if they recognize any hazard or need additional equipment.

It is CPM's policy during the hours of darkness or limited visibility; adequate lighting will be used to ensure worker safety in all work areas. The Safety Administrator and Supervisors shall ensure all temporary lighting equipment (including emergency lights at office locations) is maintained and checked regularly to ensure proper function.

- Workers shall not work unsupervised at night
- Lamps for general illumination shall be protected from accidental contact or breakage

Minimum Lighting Requirements – Foot Candles:

- 5FC General construction area lighting
- 3FC General construction areas, concrete placement, excavation and waste areas, access ways, active storage areas, loading platforms, refueling, and field maintenance areas
- 5FC Indoors: warehouses, corridors, hallways, and exits
- 10FC General construction plant and shops (e.g., batch plants, screening plants, mechanical and electrical equipment rooms, carpenter shops, rigging lofts and active storerooms, mess halls, and indoor toilets and workrooms.)
- 30FC First aid stations, infirmaries, and offices

The required illumination levels in this table do not apply to emergency or portable lights.

Hearing Conservation / Noise Exposure:

Responsibilities:
WAC 296-817: The Safety Administrator and department supervisors will monitor work activities to ensure the safety of workers potentially exposed to hazardous noise. Employees will be responsible for contacting their immediate supervisor if they recognize any hazard or need additional training.

It is CPM's policy that all employees are wearing, at a minimum, single plugs or muffs for the following activities regardless of exposure time:

- Hammering
- Operating machines or power tools (including planers, sanders, saws, drills, pneumatic tools, impact tools, air tools, etc.)
- Working next to gas or diesel operated engines (including the operation of portable gas-powered equipment, generators, compressors, welders, etc.)
- Double hearing protection required when cutting sheet metal, steel studs, or operating powder actuated tools)

In accordance with this policy, is it not anticipated that employees of CPM will be exposed to noise levels exceeding 85 dBA as an 8-hour time weighted average.

Employees of CPM who may be exposed to, or are suspected to be exposed to noise levels exceeding 85 dBA as an 8-hour time weighted average, that cannot be eliminated through engineering or administrative controls shall participate in a Hearing Conservation Plan as follows:

- Attend baseline, annual hearing tests and complete training (outlined below)
- Wear any personal protective equipment, such as plugs and/or muffs, correctly where required by this policy
- Inform their supervisor or the Safety Administrator of any suspected undocumented hazardous noise work areas and/or tasks

The table below is to be used when employees are exposed to noise levels equal to or greater than 85 dBA while using hearing protection that is properly donned and the properly reduced Noise Reduction Ratings has been applied.

Effective Noise Level (Measured dBA and/or dBC) – NRR provided by HPD use)	Maximum Daily Exposure Duration (Hours)
85	**8**
88	**4**
91	**2**
94	**1**
97	**0.5 or 30 minutes**
100	**0.25 or 15 minutes**

Effective Attenuation (Correction factors) for Hearing Protection Devices (HPDs) using DBA:

- Custom Molded Earplug — Effective NRR (dB) = NRR - 7dB — 13dB
- Earmuffs — Effective NRR (dB) = (NRR x 0.75) – 7 dB — 13dB
- Formable Foam Earplugs — Effective NRR (dB) = (NRR x 0.5) – 7dB — 8dB

Effective Attenuation (Correction factors) for Hearing Protection Devices (HPDs) using DBC:

- Custom Molded Earplug — Effective NRR (dB) — 19dB
- Earmuffs — Effective NRR (dB) = (NRR x 0.75) — 20dB
- Formable Foam Earplugs — Effective NRR (dB) = (NRR x 0.5) — 15dB

  - ✓ ≥85, <92 dBA: Hazardous noise activities requiring single hearing protection (muffs or plugs).
  - ✓ ≥92, <103 dBA: Hazardous noise area requiring single hearing protection (muffs or custom plugs).
  - ✓ ≥103 dBA: Hazardous noise areas requiring double hearing protection (muffs with plugs) if/when maximum exposure times are exceeded.

CPM may consult with an Industrial Hygienist as needed to ensure adequate HPDs are used.

If/When Required, Initial and Refresher Training:

For CPM employee(s) whose noise exposure equals or exceeds 85 dBA TWA8.

- When an employee is first assigned to a position (with exposure that equals or exceeds 85 dBA as an 8-hour time weighted average) and at least annually after that.

Training will include:

- The effects of noise on hearing (including both occupational and nonoccupational exposures)
- Noise controls used in CPM workplaces
- The purpose of hearing protectors:
    - The advantages, disadvantages, and attenuation of various types
- Instructions about selecting, fitting, using, and caring for hearing protection
- The purpose and procedures for program evaluation including audiometric testing and hearing protection auditing when you choose to rely upon auditing
- The employees' right to access records kept by the employer

CPM will update information provided in the training program to be consistent with changes in controls, hearing protectors and work processes.

Hazard Communication:

WAC 296-800-170 & 155-17323: Employees who may be exposed to hazardous materials must participate in this program, and have specific responsibilities to ensure its ongoing effectiveness

Responsibilities:

The Safety Administrator is responsible for ensuring:

- Industrial Hygiene services are contracted as necessary
- Safety Data Sheets (SDS) are readily available (without boundaries) and are incorporated into project plans
- Annual review of the Haz-Com program is completed and updated as necessary
- Developing, implementing, and maintaining the elements of the Haz-Com Program, and training is provided for all CPM affected personnel

Employee Supervisors are responsible for:

- Acting as the initial contact for employees with questions regarding potentially hazardous chemicals they work with, and providing access to SDS information
- Relaying concerns to CPM management as soon as they are known
- Ensuring SDS's are received with new chemicals and forwarding them to the Safety Administrator for review and possible safer alternatives
- Ensuring that employees follow the program

Employees maintain the responsibility for:

- Following all requirements of the Haz-Com Program
- Identifying problems, deficiencies, or omissions in the Haz-Com Program, and informing their supervisor of any conditions that may not allow them to perform their assigned job tasks safely

Purchasing Hazardous Materials:
When purchasing and receiving hazardous materials, employees must ensure that an SDS accompanies each product. Upon receipt of any hazardous material, provide a copy of the SDS to the Safety Administrator.

Labeling and Marking Requirements
Labels and secondary labels require the following elements:

- Pictogram: A symbol plus other graphic elements, such as a border, background pattern, or color that is intended to convey specific information about the hazards of a chemical. Each pictogram consists of a different symbol on a white background within a red square frame set on a point. There are nine pictograms under the GHS
- Signal words: a single word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for less severe hazards
- Hazard Statement: a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard
- Precautionary Statement: a phrase that describes recommended measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical or improper storage or handling of a hazardous chemical

<u>All containers of hazardous chemical(s) must comply with the labeling and marking requirements prior to being released for use.</u>

Secondary Containers
When a chemical is transferred from its original container into a secondary container, unless it remains in the user's immediate possession, the secondary container must be labeled with appropriate identification and hazard warning information.

Training:
CPM employees shall receive Haz-Com training when applicable
This training includes:

- An overview of the requirements contained in the Hazard Communication Standard, 1910.1200
- Chemicals present in their workplace operations
- Location and availability of the written hazard program
- Physical and health effects of the hazardous chemicals
- Methods and observation techniques used to determine the presence or release of hazardous chemicals in the work area
- How to reduce or prevent exposure to these hazardous chemicals through use of control/work practices and personal protective equipment
- Emergency procedures to follow if the employee is exposed to these chemicals
- How to read labels and review SDS to obtain appropriate hazard information
- How to access the database of safety data sheets
- Steps CPM has taken to reduce or prevent exposure to these chemicals

Hazardous Non-Routine Tasks:
Occasionally, employees are required to perform non-routine tasks that may pose a special hazard (i.e., spill response). Prior to initiating a hazardous non-routine task, a Supervisor will provide information to the affected employee regarding the hazards associated with the chemical, and the task in the activities.
Information provided by the Supervisor will include:

- Specific chemical hazards involved
- Protective equipment and safety methods the employee can use to lessen the hazards
- Controls in place to reduce the hazards, including ventilation, protective equipment, working in pairs, and emergency procedures
    - No employee will begin a non-routine task without first receiving a safety briefing

Respiratory Protection:

Responsibilities:
WAC 296-842-100: The Safety administrator and Project supervisors will monitor work activities and initiate controls to ensure the safety of workers potentially overexposed to airborne contaminants; as well as ensure employees performing at-risk tasks are adequately trained for their assigned duties. Employees will be responsible for contacting their immediate supervisor if they recognize a respiratory hazard, need additional training, or experience any safety issues with methodology or equipment.

<u>It is not anticipated that respirators will be utilized by CPM employees.</u>

Hazard Identification:

- Hazards shall be identified through pre-task planning, review of SDS, and workplace inspections
- If needed, the Safety Administrator will ensure that appropriate respirators are selected based on contaminant type and concentration, and suitable training and supervision is provided

Voluntary Use:
WAC 296-842-11005 (OSHA Appendix D to Sec. 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required under the Standard):
"Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.
You should do the following:
1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator's limitations.

2. 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 tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator."

Crystalline Silica Exposure Control:

Responsibilities:
WAC 296-840: The Safety Administrator or other "Competent person" and supervisors will monitor work activities and initiate controls to ensure the safety of workers potentially exposed to airborne crystalline silica; as well as ensure employees performing at-risk tasks are adequately trained for their assigned duties. Employees will be responsible for contacting their immediate supervisor if they recognize a silica hazard, need additional training, or experience any safety issues with methodology or equipment.

Administrative Controls:
Any visible amount to respiratory dusts containing crystalline silica in a worker's breathing area is reasonably considered overexposure.
CPM project management and/or safety staff shall:

- Establish and implement a written exposure control plan for any project that identifies tasks that involve exposure and methods used to protect workers, including procedures to restrict access to work areas where high exposures may occur
- Designate a Competent Person (or CIH) to implement the written exposure control plan
- Restrict housekeeping practices that expose workers to silica where feasible alternatives are available
- Train workers on work operations that result in silica exposure and ways to limit exposure
- Work activities outside OSHA Table 1 shall require an exposure assessment

Engineering Controls:
CPM shall control exposures to respirable crystalline silica with the following controls:

- All handheld power saws or other equipment used for cutting, chipping, grinding, breaking or otherwise altering material containing silica shall be used according to the manufacturer's instructions, be equipped with wetting device or HEPA vacuum system.

General Control Methods Required (Reference OSHA Table 1)
https://www.osha.gov/silica/SilicaConstructionRegText.pdf

- Restrict access, set up caution tape, post signs, or use containment methods like plastic (if necessary) to reduce exposure to others

- Use wet sweeping or sufficient sweeping compound to minimize visible dust. Do not clean with compressed air. Use HEPA vacuum to clean holes, empty vacuums and clean filters frequently, keep up on housekeeping, and contain dusty debris in sealed bags
- Use ventilation and stand upwind from source to reduce exposure
- Use integrated vacuum collection system to contain dust. Clean holes with HEPA filtered vacuum
- Use vacuum system to contain dust or use wet method. Wear respirator (APF 10) when working inside (or outside more than 4hrs)
- Use vacuum attachment on tool or have another worker hold at the source to contain dust or use integrated wet cutting. Wear respirator (APF 10) when working inside (or outside more than 4hrs)
- Monitor work area for visible dust. Wet surface during excavation to prevent airborne dust or be in enclosed cab. Schedule high exposure tasks when others are not working to limit exposure

Medical exams (including chest X-rays and lung function tests) will be performed every three years for workers who are required by the standard:

- Workers required to wear a respirator more than 30 days per year
- Doing any work above the action level, a concentration of airborne respirable crystalline silica of 25µg/m3, calculated as an 8-hour TWA, more than 30 days per year

Employees required to wear respirators shall follow a respiratory protection program per WAC 296-842.
All documents and records related to this plan will be maintained for a minimum period of duration of employment plus 30 years.

Electrical Safety & Grounding:

Responsibilities:
WAC 296-800-280 & 296-155-428: The Safety Administrator and Department Supervisors will monitor workplaces for electrical hazards and initiate controls to ensure the safety of workers and property. Employees will be responsible for contacting their immediate supervisor if they recognize an electrical hazard.

<u>Only qualified/designated electricians shall perform electrical work on systems 50 volts or greater.</u>

- No work on energized equipment shall be performed unless de-energizing creates a greater hazard, or it is not feasible to de-energize
- Lock-out/Tag-out shall be applied when necessary or required, follow a written and accepted program, and be administered by a qualified person
- Electrical systems and devices shall be checked and found acceptable for polarity, ground continuity and ground resistance before initial use and before use after modification
- Electrical PPE shall be used/worn as required by the NFPA/NEC

Inspections:
Extension (temporary flexible) Cords:

- Must be in “like new” condition with no torn insulation (end plugs of cords are gripped to insulation)
- Must be used with GFCI protection when used for construction or in damp locations

- Cords used for construction (or outdoors) must be rated for wet / outdoor use
- All extension cords must be three-wire cords with the ground pin in place
- All wires are continuous and unbroken and not attached to a structure (such as stapled to a wall)
- All cords must be protected from damage, likely to occur when passing through a door or window and are not concealed in walls, floors or ceiling
- Cords must be connected to devices and fittings so that any pulling force on the cord is prevented from being directly transmitted to joints or terminal screws on the plug
- Cords must be placed / situated to eliminate tripping hazards such as taped down, covered or otherwise demarcated

Offices and Administrative Areas:

- Portable heaters, microwaves and other high-wattage devices shall be plugged directly into an outlet, not to be used with extension cords or power strips
- Extension cords, including power strips shall not be daisy chained or used with additional splitters
- Power strips shall be rated and approved for the amount of current being drawn through them
- Any/all electrical receptacles and equipment shall be protected from water or contact with other liquids
    - Fixtures used in damp locations must be approved for such use
- Breakers tripped more than once shall be inspected by a qualified electrician prior to resetting
- Areas in front and around electrical panels must be kept clear for unrestricted access (at least 36 inches)

Electrical Tools and Equipment:

- Must be used only as per the manufacturer's intended use
- Must be properly grounded
- Equipment or lights shall not be supported by cords
- Bulbs must be guarded on temporary lights
- Power tools must be double insulated or grounded
- Tools shall not be used if cords are damaged
- Tools shall not be lifted or carried by the cord
- Make sure exposed metal parts of fixed equipment that do not conduct electricity, but may become energized, are grounded under any of the following conditions:
    - If the equipment is in a wet or damp location and is not isolated
    - If within 8 feet vertically or 5 feet horizontally of ground or grounded metal objects and subject to employee contact
    - If in electrical contact with metal
    - If in a hazardous (classified) location
    - If supplied by a metal-clad, metal-sheathed, or grounded metal raceway wiring method
    - If equipment operates with any terminal at over 150 volts to ground
- Make sure a conductor used as an equipment grounding conductor is identifiable and distinguishable from all other conductors

- Make sure grounded conductors are not attached to any terminal or lead so as to reverse polarity of the electrical outlet or receptacle
- Make sure grounding terminals or grounding-type devices on receptacles, cords, connectors, or attachments plugs are not used for purposes other than grounding

Workers shall not be exposed to unprotected energized electrical panels or equipment.
Equipment shall be guarded by:

- Approved enclosures
- A room, vault or similar enclosure accessible only to qualified persons
- Suitable permanent, substantial partitions or screens so only qualified persons have access to the space within reach of live parts

Workers performing electrical work must:
Guard live parts of electric equipment operating at 50 volts or more against accidental contact by any of the following means:

- By approved cabinets or other forms of approved enclosures
- By location in a room, vault, or similar enclosure that is accessible only to employees qualified to work on the equipment. Entrances to rooms and other guarded locations containing exposed live parts must be marked with conspicuous warning signs forbidding unqualified persons to enter
- By permanent, substantial partitions or screens so that only employees qualified to work on the equipment will have access within reach of the live parts
    - Any openings must prevent accidental contact with live parts by employees or objects employees carry
- By location on a balcony, gallery, or platform that will exclude unqualified persons
- By being located eight feet or more above the floor or other working surface
- Make sure all electrical appliances, fixtures, lampholders, lamps, rosettes, and receptacles do not have live parts normally exposed to employee contact
    - Rosettes and cleat type lampholders at least 8 feet above the ground may have exposed parts.
- In locations where electric equipment would be exposed to physical damage, enclosures or guards must be so arranged and of such strength as to prevent such damage

Control of Hazardous Energy (Lock-out/Tag-out):

Responsibilities:
WAC 296-155-429: The Safety Administrator and trained department supervisors will monitor workplaces for electrical hazards requiring control of hazardous energy, and initiate controls to ensure the safety of workers and property. Employees will be responsible for contacting their immediate supervisor if they recognize an electrical hazard.

Employees applicable to the Lockout/Tagout Plan will:

- Understanding their specific role as either an Affected Employee, or an Authorized Employee

- Attend training for Authorized or Affected Employees, as required or appropriate
- Identify equipment, processes and related activities that could result in exposure to unexpected energy, equipment start-up or release of stored energy
- Inform the Safety Administrator and their Supervisor of any safety or health hazards that may be present or potentially affect personnel
- Participate in the periodic inspections and annual review of this plan as required

Lockout/Tagout Procedures by Role:

Affected Employees may be responsible for operating equipment that is being serviced under this plan. Affected Employees may also be working in areas where maintenance or repairs are performed on systems, equipment, or machinery.
Affected Employees will:

- Be trained to recognize when an energy-control procedure is being used
- Understand the purpose of the lockout/tagout procedures being implemented
- Understand the importance of not tampering with any lockout/tagout devices and not starting or using locked or tagged out equipment or machinery

Authorized Employee(s) working on equipment and/or a system will be responsible for identifying and implementing the appropriate procedures needed to control the potential release of hazardous energy. Authorized Employees will ensure that all Affected Employees are notified that a lockout/tagout activity is going to occur.
Authorized Employees will:

- Identify and understand the hazards and what precautions are needed to control them
- Shut down the equipment or machinery by turning the operating controls to the OFF or neutral position.
- Be issued lockout/tagout devices including individual locks that are identified by unique numbers, colors and the employee's name
- Physically isolate the equipment from all energy sources. It may be necessary to utilize one or more of the following methods depending on the type of operation:
    - De-activating the equipment by primary electrical circuits, pneumatic isolation valve(s) or other primary energy service devices
    - Stored energy, such as springs under tension, rotating flywheels, hydraulic systems, compressed air or gas lines or backup energy supplies must be dissipated or restrained by either repositioning, blocking or bleeding down to a zero-energy state
    - In some cases, more than one source of power or hazard will be present, and therefore, multiple lockout/tagout devices may be necessary to lockout a system or piece of equipment
- Lock out the energy isolation device with a personal and individually assigned lock and tag

Note: If two or more Authorized Employees are involved in the maintenance or repairs, a device that facilitates multiple locks shall be used such as a spider or gang hasp. Each additional Authorized Employee working on the same system or piece of equipment will install their own personal lock and tag on the multiple lockout device.

Lockout devices required by this plan will be individually assigned and provided to each Authorized Employee.

- Each Authorized Employee within CPM Operations is assigned individually keyed and numbered locks
- If and when additional locks are needed, the Supervisory person in charge will provide locks temporarily to employees and will record the lock number assigned
- Use a tagout device (tag) for equipment that cannot be locked out with a lock
- Attach the tagout device on or as close as possible to the energy isolating device (for example, at the circuit breaker itself)
    - The tag must clearly indicate that the operation or start-up of energy isolating device from the neutral or off position is prohibited
    - Tags will include the name of each individual involved in the Lockout/Tagout procedure and will be attached using nylon cable ties which cannot be removed except by cutting
- Confirm that exposure to personnel or property does not exist and the potential for exposure to hazardous energy sources is controlled
- Perform a safety test by engaging the point of operation or on-off switch. All operating controls will be returned to the OFF or neutral position after the safety test verifies that the system is non-operational.
- Take the following actions once the maintenance task or repair has been completed
    - Clear the machine or equipment of all tools and material that are non-essential items
    - Confirm that all employees are clear of the machine or equipment and notify them that the machine will be energized
    - Remove the lockout devices and/or tagout devices from the energy isolation device
    - Energize and proceed with testing or operations

Training:

All CPM employees performing maintenance and repair on systems, machinery, or equipment will be provided training to ensure that machines, equipment and circuits are isolated from all potential energy sources including lockout and tagout procedures.

- All Affected and Authorized Employees are required to attend Lockout/Tagout training prior to using or working around Lockout/Tagout procedures
- Department supervisors will ensure Affected and Authorized Employees receive the appropriate Lockout/Tagout training
- Training shall explain the purpose, function and implementation of hazardous energy control procedures
- Affected Employees will receive “Affected” level training
- Authorized Employees will receive “Authorized” level training
    - This training shall occur prior to being exposed to hazardous energy.
- Retraining and or refresher training will be provided for employees when there is a change in job assignments, equipment or processes that present a new hazard, or when there is a change in the lockout/tagout and energy control procedures.
- CPM will retain employee Lockout/Tagout training records for the duration of employment

Procedures:

Hazardous energy sources may include:

- Electrical
- Mechanical
- Hydraulic
- Pneumatic
- Gravity
- Thermal

✓ Installing, servicing, removing, or performing electrical or mechanical maintenance on any equipment or machinery requires that the equipment be turned off or de-energized, all stored hazardous energy has been bled down, dissipated, or blocked off, and the machinery has been locked out and blocked.

Procedures for Maintenance on Equipment Powered Through Electrical Cord without the Ability to Retain Stored Energy:

Servicing or maintenance on equipment that is powered through an electrical cord and plug without the ability to retain stored energy shall be worked on with the cord unplugged.

- The Authorized Employee will check to be sure that no one is operating the machinery BEFORE turning off the power.
    - The machine operator shall be informed before the power is turned off
- The Authorized Employee will ensure that either a locked cord cap is placed on the plug or the plug remains within their control (within Authorized Employee's sight) at all times
- The Authorized Employee will test the on/off switch to ensure that the machinery is off before beginning work
- Authorized Employees must remain in the area with the equipment unplugged if an accidental restart could result in injury or damage to the equipment
- If it becomes necessary to leave prior to completing the work, a lockout device shall be placed on the plug to prevent use of the equipment
- The Authorized Employee shall inform any Affected Employees before removing locks and returning equipment to an in-service status

Procedures for Equipment with Multiple Energy Sources or the Ability to Retain Stored Energy:

The following steps shall be completed only by an Authorized employee.

- Check to be sure the machine is not being operated BEFORE turning off the power.
    - The machine operator shall be informed before the power is turned off
- Electrical disconnects with the potential to supply power to the equipment will be identified, and all energy sources that could activate the machine shall be locked out (blocked/tagged)
- Pneumatic (air) and hydraulic lines shall be bled, drained, and cleaned out. There shall be no pressure in these lines or in reservoir tanks
- Any mechanism under tension or pressure, such as springs, shall be released and blocked
- When working on machinery such as presses or other components that could fall, the equipment shall be supported with safety blocks or pins.
- Each person working on the machinery shall install their own lockout device(s).
- Each lock shall remain on the machine until that worker's work is complete

- The main valve or main electrical disconnect shall be tested before beginning work to ensure that the power to the machine is off
- The Authorized Employee shall reverse the lockout steps as appropriate to remove any blocks or locks and inform any Affected Employees before removing locks and returning equipment to an in-service status

Lock Removal

Only Supervisory personnel are allowed to remove another Authorized Employee's lockout/tagout devices in the event that the Authorized Employee is not available, and it becomes necessary to remove the lockout devices.

If it is necessary to remove the lockout devices of another Authorized Employee, a Project Manager, or other designated supervisor in charge will complete the following actions:

- Verify that the Authorized Employee who applied the lockout/tagout device is not at the facility
- Complete a Lockout/Tagout Devices Removal Form
- Make a reasonable effort to contact the Authorized Employee to inform them that their lockout/tagout device has been removed
- Ensure that the Authorized Employee has been made aware of the change in lockout/tagout status before they resume work at the facility
- Forward a copy of the completed Lockout/Tagout Devices Removal Form to the Safety Administrator for review and recordkeeping

A secondary key of all locks issued to Authorized employees will be kept in a secure location in Supervisory personnel offices for purposes of lock removal only

- ✓ Secondary keys will be accessed by Supervisory personnel only after completing all the lockout/tagout device removal procedures in this plan

Continuity of HEC Across Shift Changes:

- ✓ Individual lockout/tagout devices will be changed if the same system, machinery, or piece of equipment will continue to be worked on during shift or personnel changes
- ✓ The Authorized Employee leaving will remove their lock and/or tag, and the Authorized Employee coming in will install their lock and/or tag. Exchanging keys and using each other's locks is not permitted
- ✓ In situations where the Authorized Employee coming in has not arrived, a Supervisory person will install their lock and/or tag until the other's arrival

Lockout/Tagout Inspections:

Periodic inspections of Lockout/Tagout procedures will be conducted, at least on an annual basis to ensure the following:

- Lockout and tagout procedures are adequate
- Authorized and Affected Employees know their procedure responsibilities
- Energy-control procedures and requirements are being followed

The Safety Administrator and/or supervisors with assistance from other Authorized Employees will perform the periodic inspections.

Powered Industrial Trucks (Forklifts):

Responsibilities:
WAC 296-863: The Safety Administrator and department supervisors will monitor the use of powered industrial trucks and initiate controls to ensure the safety of workers and property. Employees will be responsible for contacting their immediate supervisor if they recognize any hazard with and load handling equipment.

Forklift Training:
Training on the specific class of lift is required prior to operation. Both general training and hands-on practical training, on the specific type of lift used. Training includes examining the operator's manual, safe operation, and understanding the function and location of all safety devices.
(Operator must be reevaluated every three years)

Inspection and tests:
Operators must complete a pre-operation inspection and function tests (as per the manufacturer's guidelines) daily or before each shift. If the lift is found defective, it is to be immediately tagged and removed from service until it can be repaired by a qualified service technician.

Workplace hazard assessment:
Operators shall perform a workplace hazard assessment prior to using a lift. Avoid hazards such as drop-offs, holes, slopes, stub-ups, blind areas, slippery or unstable surfaces, overhead obstacles, power lines and any other hazards that may exist.
General Safety Controls:

- Operators manual must be available.
- Forklifts shall be inspected prior to use (according to the operator's manual) and removed from service immediately if defective
- All safety devices must be working properly when in use
- Forklift shall only be used as per the manufacture's guidelines
- No Passengers
- No stunt driving, speeding or horseplay
- Seat belts are required
- No cell phone use during operation
- Forklifts shall not be unattended with a suspended load
- Eye-to-eye contact with pedestrians shall be made before passing
- Be cautious on turns and stop at blind corners
- Sound horn when needed to make presence known
- Drive on hills forward or backwards as needed to keep loads from falling forward off the forks

- Travel with the load as low as possible
- Use spotters when needed to protect pedestrians or help with limited visibility
- Be cautious of overhead obstructions, including a minimum of 10' clearance of overhead electrical lines
- Forklifts shall not be used for hoisting humans unless the "man basket" is an appropriate engineered apparatus approved by the forklift manufacturer for such use.
- Approved hoisting devices shall be used if/when hoisting with a forklift
- Forklifts shall only be serviced by trained and designated employees
- Appropriate PPE shall be worn when servicing lifts, including the service of batteries
- No person is ever allowed to be underneath the load of a forklift, for any reason, at any time

  - ✓ Using gas powered forklifts inside? Test the air! Be sure to keep areas well ventilated by opening bay doors. Forklifts are using up the oxygen you're breathing
  - ✓ Using propane? Be sure to bleed the lines before disconnecting tank. Propane can cause skin and eye injury. Gloves and safety glasses are required when performing fueling activities. Ask your supervisor or propane technician for training
  - ✓ And remember… Gasoline and propane are flammable, no smoking around the forklift

Class 7 (Telescoping rough terrain forklifts)

In addition to the requirements stated above, operators of telescoping forklifts must recognize and understand the lift's load capacity chart.

- It is critical that the load chart in the lift matches the machine and the attachment(s) being used
- Load charts must be clearly legible
- Operators must ensure the weight and center of gravity of the load does not exceed the lift's or attachment's maximum rated capacity
- Operators must evaluate the weight and dimensions of the load to determine proper load handling techniques
- Loads must be secured to prevent dropping material

Hoisting / Rigging Applications:

- The forklift and any attachment must be utilized only as per the manufacturer's intended purpose
- Rigging slings and machine attachments must be engineered and rated for such use
- Weights of loads must be estimated prior to hoisting
- Operators must be trained specifically on hoisting methods, attachments, and load charts
- A qualified Lift Director must be assigned
- Only qualified riggers are permitted to rig loads

Tools, Machines & Equipment:

Responsibilities:
WAC 296-809, WAC 296-155-350 through 296-155-380: The Safety Administrator and department supervisors will monitor workplaces to ensure tools and equipment are in proper working condition, and initiate controls to ensure the safety of workers and property. Employees will be responsible for contacting their immediate supervisor if they recognize any hazard with tools or equipment.

- Employees shall inspect tools, machines and equipment before each use and remove from service immediately if defective
    - All employees shall have the authority to remove defective tools or equipment from service

Hand & Power Tools:

- Operate according to the manufacturer's instructions
- Tools, machines and equipment shall not be operated unless the worker is familiar with the operating functions.
    - Workers shall seek direction from a supervisor for instruction or training
- Use the right tool for the job
- Do not carry a tool by the cord or hose
- Keep cords and hoses away from heat, oil, and sharp edges
- Unplug tools before servicing, and when changing accessories such as blades, bits, and cutters
- (As applicable) Secure work with clamps or a vise, freeing both hands to operate the tool
    - Do not cut material that is supported against your body
- Keep all tools in good condition with regular maintenance
- Keep good footing and maintain good balance while using tools
- Wear proper apparel for the task. Loose Clothing, ties, or jewelry can become caught in moving parts
- Use PPE as recommended by the manufacturer or as needed for safe operation
- Maintain tools with care. Keep sharp and clean for best performance. Follow instructions in the user's manual for lubricating and changing accessories
- Avoid accidental starting. Do not hold fingers on the switch button while carrying a plugged-in tool
- Tools requiring specialized training such as powder-actuated tools shall not be used unless such training has been completed by a qualified trainer
- Hand-held grinders shall not be operated without guards unless specifically detailed in an operator’s manual
    - Ensure the correct size wheel / attachment is utilized with the specific tool being used

Powder Actuated Tools:

- Must be approved by the Safety Administrator
- Operators must be trained and qualified for use
- Signs stating “Powder Actuated Tool in Use” must be posted
- Hearing protection is required for all person’s in the immediate area

Machines & Equipment:
WAC 296-806: Machines and equipment shall not be operated unless the worker is familiar with the operating functions. Machines and equipment shall only be operated according to the manufacturer's instructions.

The hazardous moving parts of power tools need to be safeguarded. Belts, blades, gears, shafts, pulleys, sprockets, spindles, grinder wheels, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment must be guarded unless otherwise specified by the manufacturer.

- Guards or other protective measures must be provided to protect the operator and others from the following:
  - Point of Operation
  - In-running nip points
  - Rotating Parts
  - Flying chips and sparks
  - Safety guards must never be removed when a tool is being used.
  - Bench grinder guards must be utilized:
    - Work Rest, 1/8" spacing maximum
    - Tongue guard, ¼" spacing maximum
- Tools mounted on stands or resting on benches must be adequately anchored to prevent tipping

Employees Exposure to Machines and Equipment WAC 296-809:

- Only essential workers will be around machines
- A pre-determined route and clear visual path around machines shall be established
  - Workers should keep a safe distance from all sides of operating machinery
- Equipment operators may establish a danger zone, demarcating the working area
- Workers will observe and follow warning labels on all machines
- Workers shall maintain a clear line of sight with operators
  - Hand signals or radio communication between an operator and other workers may be needed for effective communication
- Workers shall be aware of swing areas of equipment and, when applicable, demarcate with warning line
- If/when applicable, workers will understand emergency shut-down procedures
- Workers are prohibited from being adjacent to operating machinery that is not properly guarded
- Wear proper apparel for the task. Loose Clothing, ties, or jewelry can become caught in moving parts
- Use PPE as recommended by the manufacturer or as needed for safe operation

Compressed Air Tools:

- Fittings, hoses and connectors shall be checked prior to use to ensure safe operation
- Chicago fitting shall be secured with safety clips and whip lashings
- Air used for cleaning will not exceed 30 PSI
- Hearing protection is required as necessary to protect workers from excessive noise
- Bleed air lines and disconnect tools when left unattended
- Safety devices must be fully functioning

Fall Protection Plan:

Responsibilities:
WAC 296-880: The Safety Administrator and department supervisors will monitor workplaces for fall hazards, and initiate controls to prevent workers from falling. Employees will be responsible for contacting their immediate supervisor if they recognize any fall hazard.

- **Work areas will be evaluated continuously for slip, trip and fall hazards at any level**
- **Surfaces on which employees will be working or walking must be structurally sound, able to safety support the intended load**
- **Fall protection shall be implemented at heights of 4' or greater unless required otherwise by standard**

Fall Protection Required at Any Level:

- WAC 296-880-10010 Fall protection is required at any elevation when exposed to dangerous mechanical, chemical or impalement hazards
- Holes (greater than 2") where a person could trip, step into, or step through must be covered adequately to support twice the weight imposed

Fall Protection Required at 4 feet:

- WAC 296-880-20005 Fall protection is required for all "walking/working surfaces"
    - *A walking/working surface is any surface, whether horizontal or vertical on which an employee walks, works, or gains access to a work area or workplace location. Walking/working surfaces include, but are not limited to, floors, the ground, roofs, ramps, bridges, runways, stairs, dock boards, formwork, and reinforcing steel <u>but not including ladders</u>.*
- Holes a person can fall into or through 4 feet or greater must be guarded by a standard guardrail or other effective means of fall protection must be implemented
- Openings in walls or partitions where a person could fall 4 feet or greater must be guarded by a standard guardrail or other effective means of fall protection must be implemented
- If stilts, platforms, or ladders elevate workers above the protection of a guardrail, the height of the guardrail must be elevated, or other effective means of fall protection must be implemented
- Skylights must be covered to support without failure, twice the weight imposed
- Rolling stock, whenever suitable anchors can be provided workers must be protected by a fall restraint or arrest system, as long as the system does not create a greater hazard
    - This requirement is typically not required on construction sites

Fall Protection Required at 6 feet:

- Roofing work on flat or low-sloped roof (4:12 or less) that is not otherwise hazardous (slippery, etc.)
- Installing a "Leading Edge" (working towards an edge, a finished roof is not a "Leading Edge")

Fall Protection Required at 10 feet:

- Scaffold Use
- Actively engaged in erection or placement of structural members (top plates, trusses, joists)
- Open trenches (does not apply to workers involved with trenching activities)

System Variables:

- Scaffold Erectors are required to use personal fall protection whenever its use is feasible
- Workers engaged in excavation / trenching activities are exempted from some fall protection requirements. All other workers must stay out of the "affected area" (area away from the trench equal to its depth up to 15')
- Workers performing roofing and leading-edge activities may use a "Safety Monitor" and/or "Warning Line system – See below
- A "Safety Watch" system may be used when servicing or repairing equipment on low-sloped roofs – See below

Employees may be exempt from the use of personal fall protection only under the following conditions:

1. During initial installation of the fall protection anchor (prior to engaging in any work activity), or the disassembly of the fall protection anchor after the work has been completed
2. An employee directly involved with inspecting or estimating roof-level conditions only on low pitched roofs prior to the actual start of construction work or after all construction work has been complete

Examples of activities of inspecting or estimating include:

- ✓ Measuring a roof to determine the amount of materials needed for a project
- ✓ Inspecting the roof for damage without removing equipment or components
- ✓ Assessing the roof to determine what method of fall protection will be provided to employees

Competent Person(s) and Training:

WAC 296-880-10015 A designated competent person (CP) will be responsible for administering all personal fall protection (FP) training. In addition, the CP will coordinate with workers to oversee tasks requiring FP, and will ensure that the proper FP equipment and anchor points have been selected and are being used in accordance with manufacturer's specifications and a job specific fall protection plan.

<u>Competent Person(s) for Fall Protection training shall be trained, with a combination of formal classroom training and practical applications. All training shall be documented.</u>

Workers who are exposed to open fall hazards shall be trained before using personal fall protection equipment by a CP. Training will include fall protection systems/equipment and the recognition of fall hazards related to their use, including:

- Development of fall protection plans
- Hazards in the work area
- Procedures for erecting, using, dismantling, inspecting, maintaining, and storing equipment
- Application limits including free fall distance, total fall distance and clearance requirements of fall protection systems and equipment
- Rescue equipment and procedures

- Hands-on and practical training
- Proper anchoring and tie off methods
- Overhead protection for workers below
- Proper use of PFAS (Personal Fall Arrest System)

Employees must be able to demonstrate an understanding of their training, as well as demonstrate the ability to use fall protection properly

Circumstances where retraining is required:

- Updates or changes in fall protection programs or procedures including rescue methods
- Lessons learned, employee's performance, and program review
- Workplace conditions that could affect the safe use of the fall protection equipment
- Recommended at least every two years

Fall Protection Plan Overview:

WAC 296-880-10020 Workers shall follow the "safety hierarchy of controls" mitigating fall hazards through engineering controls, administrative controls, and lastly, PPE. Fall restraint systems, safety nets and personal fall arrest systems shall only be used when engineering controls such as rails or administrative controls (such as relocating work) are not feasible.

- ✓ A job specific Fall Protection Plan shall be completed by a Competent Person for all activities requiring workers to use personal fall protection, when exposed to falls of 10' or greater, or when convention fall protection equipment cannot be utilized.
- ✓ The plan shall identify the following:
    - What the fall hazards are, and the equipment being used to control each hazard
    - Methods of assembly and disassembly of the fall protection systems used
    - Methods for storage and handling of fall protection gear
    - Methods of controlling hazards (work areas) with overhead work
    - Methods of rescue for fallen and/or injured workers

Activities that may require personal fall protection:

- Exposure to open sided walking working surfaces
- Roof work
- Wall and floor holes or openings
- Scaffold use
- Operation of Elevated Work Platforms
- Working near or around unprotected edges

System Design:

Fall protection, including anchorage points, lifelines, restraints and PFAS shall be used only according to manufacturer's data, and/or designed by a registered professional engineer. Structural points used for anchorages must be designed and/or approved for such use.

Fall Restraint versus Fall Arrest:

- Fall Restraint is: The preferred method… A guard rail, or a lanyard that does not allow a worker to reach an edge. Fall restraint prevents a worker from falling any distance
- Personal Fall Arrest (PFAS) is: A system that absorbs the shock of a fall with a deceleration device. Fall arrest catches a worker before they land

Rescue Plan & Procedures:

Rescue procedures shall be addressed in all fall protection training. At all times, when any worker is using a PFAS, a predetermined means of rescue shall be in place. Means of rescue may include ladders, mechanical lifts, or any other safe and feasible method. No worker shall be allowed to work alone using a PFAS; a second worker must be available for rescue. Equipment designated for rescue must be immediately available.

- ✓ In the event of a fall, an investigation will be conducted to determine the cause as well as the required equipment or modified procedures necessary to ensure that the event cannot reoccur

Suspension Trauma:

Prolonged suspension from fall arrest systems can result in serious physical injury, or potentially even death in less than 30 minutes.

Means shall be provided for prompt rescue of fallen (suspended) employees. Or, supervisors shall assure that employees are able to rescue themselves. This should include identifying rescue procedures that address the potential for orthostatic intolerance and suspension trauma. Rescue procedures also should address how the rescued worker will be handled to avoid any post-rescue injuries.

Recognize / apply the following:

- Rescue suspended workers as quickly as possible
- Suspended workers with head injuries, or who are unconscious are particularly at risk
- Be aware of factors that can increase the risk of suspension trauma
- Training for all pertinent workers

Rescue procedures should include the following contingency based actions:

- If self-rescue is impossible, or if rescue cannot be performed promptly, the worker should be trained to "pump" his/her legs frequently to activate the muscles and reduce the risk of venous pooling. Footholds can be used to alleviate pressure, delay symptoms, and provide support for "muscle pumping"
- Continuous monitoring of the suspended worker for signs and symptoms of orthostatic intolerance and suspension trauma
- If the worker is unconscious, keeping the worker's air passages open and obtain first aid
- Monitoring the worker after rescue, and ensure the worker is evaluated by a health-care professional
- The worker should be hospitalized when appropriate. Possible delayed effects, such as kidney failure, which is not unusual in these cases, are difficult to assess on the scene

Standard Guardrail Construction (WAC 296-880-40005):

- Top rail: 42” + or – 3” / Must hold 200lbs lateral force
- Mid-rail: Halfway between top rail and floor / Must hold 150lbs lateral force
- Toe-Board: (Required when workers below are exposed to overhead hazards)
    - Minimum 3.5” high / Must hold 50lbs lateral force
    - Screening must be used if/when toe-boards are inadequate
- Cable railings must be flagged
- Railing stanchions must be place at intervals not greater than 8’ apart

Personal Fall Protection General Use Requirements:

- All persons using personal fall protection equipment must be trained on the equipment they are using
- Fall protection equipment must be used only as per the manufacturer’s directions
- Fall protection equipment must be inspected prior to each use by the user
- Fall protection equipment must be inspected every six months by a Competent Person (or as directed by the manufacturer)
- Defective equipment or equipment subjected to a fall must be removed from service immediately

Fall Arrest System Specifications:

- Anchorages for full body harness systems must be capable of supporting (per employee):
    - 3,000 pounds when used in conjunction with:
        - A self-retracting lifeline that limits the maximum free fall distances to two feet or less or
        - A shock absorbing lanyard that restricts the forces on the body to 900 pounds or less
- 5,000 pounds for all other personal fall arrest system applications, or
    - they must be designed, installed, and used as a part of a complete personal fall arrest system which maintains a safety factor of at least two, and is supervised by a qualified person
- Maximum arresting force not to exceed 1800lbs
- Maximum free fall distance is 6’ to ensure 1800lbs is not exceeded
- A worker must calculate the clearance needed when wearing an arrest system

Self-retracting lanyard (SRL):

- SRL must be mounted or anchored such that the arrest distance shall not exceed 2’, and the average arrest force shall not exceed 1,350 lbs., or a maximum peak force of 1,800lbs
- SRL is only used for vertical applications only unless designed for horizontal use
    - SRLs designed for horizontal applications, otherwise mounted below head level, must be equipped with an energy absorber and designed with over-edge protection from damage

Safety Watch System:

WAC 296-880-40050 Allowed only where exposure to falls is infrequent (not on a predictable or regular basis)
Ensure the safety watch system meets the following requirements:

- Workers may not be within 6' from an edge
- There can only be two people on the roof while the safety watch system is being used… The one employee acting as the safety watch and the one employee engaged in repair or servicing equipment
- The employee performing the task must comply promptly with fall hazard warnings from the safety watch
- Mechanical equipment is not used
- The safety watch system is not used when weather conditions create additional hazards

Ensure the employee acting as the safety watch meets all of the following:

- Is a competent person
- Has full control over the work as it relates to fall protection
- Has a clear, unobstructed view of the worker
- Is able to maintain normal voice communication
- Performs no other duties while acting as the safety watch

Safety Monitor System Specifications:

WAC 296-880-40045 A safety monitor system may be used in conjunction with a warning line system as a method of fall protection during roofing work on low pitched roofs or leading-edge work.
Note: The warning line is not required when performing roofing work on low pitched roofs less than fifty feet Wide.

- When selected, the employer shall ensure that the safety monitor system is addressed in the fall protection work plan, including the name of the safety monitor(s) and work-related training.
- The safety monitor system shall not be used when adverse weather conditions create additional hazards.
- Employees working outside of the warning line system, (between the forward edge of the warning line and the unprotected sides or edges of a low-pitched surface), shall be readily distinguishable from other members of the crew that are working inside the warning line system by wearing highly visible, distinctive, and uniform apparel.
- Employees must promptly comply with fall hazard warnings from the safety monitor.
- A person acting in the capacity of safety monitor(s) shall be trained in the function of both the safety monitor and warning line systems, and shall:
    - Be a competent person
    - Have control authority over the work as it relates to fall protection.
    - Be instantly distinguishable over members of the work crew.
    - Perform no other duties while acting as safety monitor.
    - Be positioned in relation to the workers under their protection, so as to have a clear, unobstructed view and be able to maintain normal voice communication.
    - Not supervise more than eight exposed workers at one time.
    - Warn the employee when it appears that the employee is approaching an unprotected edge.

Warning lines erected on low pitched open sided surfaces for work activities other than roofing work or leading-edge work must be erected not less than fifteen feet from the unprotected sides or edges of the open sided surface.

Catch Platforms WAC 296-880-40060:

Catch platforms and their use must comply with the following provisions:

- Catch platforms must be installed within four vertical feet of the work area.
- Catch platforms must be a minimum of forty-five inches wide and equipped with standard guardrails and toe-boards on all open sides.
- Catch platforms must meet the strength and stability requirements of supported scaffolds

Fall protection on Trucks and Heavy Equipment on Construction Sites:

WAC 296-880-30005 The use of personal fall protection is not required on trucks or other heavy equipment. However, exposed employees must use practical means to protect themselves from falling off equipment.

- Workers/operators shall consult with the Safety Administrator when exposed to falls of 4' or greater on trucks or equipment to determine feasibility of fall protection or to engineer out the hazards using a different methodology.

Fall Protection Requirement for Earthwork:

WAC 296-880-30005 The employer shall ensure that the appropriate fall protection system is provided, installed, and implemented according to the requirements in this part when employees are exposed to fall hazards of ten feet or more to the ground or lower level.

Exceptions. Fall protection is not required at excavations when employees are:

- Directly involved with the excavation process and on the ground at the top edge of the excavation, or
- Working at an excavation site where appropriate sloping of side walls has been implemented as the excavation protective system.

Fall protection is required for employees standing in, or working in the affected area* of a trench or excavation exposed to a fall hazard of ten feet or more and:

- The employees are not directly involved with the excavation process; or
- The employees are on the protective system or any other structure in the excavation.

Note: Persons considered directly involved in the excavation process include:
• Foreman of the crew. • Signal person. • Employee hooking on pipe or other materials. • Grade person. • State, county, or city inspectors inspecting the excavation or trench. • An engineer or other professional conducting a quality-assurance inspection.

*Affected area means the distance away from the edge of an excavation equal to the depth of the excavation up to a maximum distance of fifteen feet. For example, an excavation ten feet deep has an affected area extending ten feet from the edge of any side of the excavation.

Ladders, Stairs & Scaffolds:

Responsibilities:
The Safety Administrator and department supervisors will monitor workplaces to ensure ladders, stairs and scaffolds are in good repair, employees are adequately trained, and initiate controls to safeguard workers from falls. Employees will be responsible for contacting their immediate supervisor if they recognize any hazard with ladders, stairs or scaffolds; and shall use such equipment only as per the manufacture's or Competent Person's instructions.

User training shall be provided for all workers using ladders & scaffolds at least annually or prior to use. Training for ladders and scaffolds use shall include, at a minimum:

- Manufacturer's specific use guidelines
- Competent Person designation
- Inspection criteria
- Safe access / egress
- Fall protection system utilized
- Weight capacities
- Electrical clearances
- Etc.

Workers shall be retained as deficiencies are discovered, following any mishaps, and/or if a worker is observed displaying risky behavior, or using unsafe methodology.

Ladders (WAC 296-876):

- Instructions and safety labels on ladders must be legible
- Ladders shall only be used according to the manufacturer's instructions
- All ladders shall be inspected prior to use
- Be sure the ladder is rated for its intended load
- Damaged ladders shall be removed from service immediately
- Three points of contacts is required when ascending or descending all ladders
- Step ladders shall be fully opened with braces locked when in use
- Step ladders shall not be used in a closed position leaned against a wall unless designed for such use
- Users shall not sit, stand or climb on the top step or top of a ladder
- Users shall keep centered on ladders and not lean over the sides creating to tipping hazard
- Extension ladders used for access must extend at least 3 feet above the access point to provide a handhold
- When utilized for working or access, extension ladders must be secured at the top and bottom adequately to prevent tipping
    - Climbing the ladder to install or remove securing device is permitted
- Extension ladders used leaned against walls must be secured top and bottom
- Extension ladders shall be placed on level surfaces and at 1:4 angles

- Ladder shall not be moved, shifted, or adjusted while anyone is on it
- Employees must use a safety belt with a lanyard that is secured to the ladder when doing any work that:
    - Requires the use of both hands; and
    - Is done from a ladder more than 25 feet above the ground or floor
- Work performed from a ladder more than 25 feet above the ground or floor requiring eye protection or a respirator is prohibited

Personal fall protection should be used with ladders when work activities are precarious, and it's feasible to tie off to an approved anchor.

Stairways and Walkways (WAC 296-155-475 through 296-155-477):

- Always keep one hand free to use the handrails, both up and down the stairways
- Keep all stairs and walkways clear of debris and potentially slippery substances such as ice, snow, water, oil, or grease
- Keep passageways free of tools, equipment and other materials.
- When walkways and stairs are provided-use them. Don't short-cut your safety to save a few steps or a few seconds.
    - Hopping off loading docks or jumping over piping saves no time or money if you are injured and cannot work
- Shop or warehouse mezzanines shall be equipped with standard railings to protect open sides. Railings should have top rails with a vertical height of 42 inches, mid rails, posts, and toe boards. Make sure it has a full stairway or ladder access and is equipped with perimeter railings. Payloads for storage mezzanines shall be posted
- Standard handrails must be provided for stairs with four or more steps. Handrails should be 30 to 34 inches from the top of the stair tread, measured in line with the face of the riser
- Ensure handrails are secure, repair immediately if loose of defective
- Where there are elevation changes in walkways, highlight the change so it is plainly visible
- Secure electrical cords and hoses so that they do not lie across walkways. If electrical cords must be laid across walkways, use approved cord covers whenever possible. Consider setting up a caution sign or flagging to alert individuals of cords or hoses in their path until a permanent "approved" solution can be put into place
- Take small steps on wet and icy walkways. Use handholds to stabilize yourself when they are available

Scaffolds (WAC 296-874):

- ✓ All scaffolds must be designed by a "Qualified Person"
- ✓ Scaffolds are to be erected, moved, altered, dismantle, and inspected under the supervision of the "Competent Person"
- ✓ Workers assembling, or disassembling scaffolds shall use PFAS whenever feasible
- ✓ All scaffolds, 10 feet or greater in height in height, will require a suitable Personal Fall Protection System if/when not otherwise protected with a guardrail

General Requirements for Scaffold Assembly and Use:

- All workers assembling, building, using, or otherwise on scaffolds shall be trained appropriately
- The Competent Person must ensure structural integrity when intermixing scaffold components
- Scaffold and scaffold components must be inspected for visible defects by a Competent Person before each work shift and after anything occurs that could affect the scaffold's structural integrity
- Daily scaffold inspections must be relayed to users and documented. The use of scaffold tags is required for this purpose. (This applies to all scaffold types.)
- Platforms must be fully planked on all working levels, or a minimum of 18 inches wide for access/egress
- Ladder jack, pump jack, roof bracket and top plate scaffolds must be a minimum of 12 inches wide
- All platform overlaps must be over a support and they must overlap at least 12 inches. If not, the planks must be secured to prevent displacement
- Stabilize the ends of platform planks, make sure each end extends at least 6 inches over the end support but does not exceed 12 inches
- Provide safe access to all scaffolds. Use a portable, hook-on or attachable ladder, a stairway type ladder, ladder stand, stair tower, ramp, walkway or an integral prefabricated scaffold access
- Cross braces are NOT a means for access and egress
- Scaffold components that have been damaged or weakened, or no longer meet minimum strength requirements must be removed from service until repaired
- Scaffold and scaffold components must not exceed their maximum intended load or rated load, whichever is less. Load all materials over the uprights and divide the weight evenly
- Never move an occupied scaffold
- Never use a ladder or any other device to elevate your working surface
- User's feet must remain on the scaffold platform at all times
- Railings must be installed on scaffolds according to manufacturer's guidelines, or suitable personal fall protection is required

Powerline Clearance for Scaffolds:

- Less than 300 volts with insulated lines: 3 feet
- Less than 300 volts with uninsulated lines: 10 feet
- 300 volts to 50 kv: 10 feet
- More than 50 kv 10 feet + 0.4 inches for each 1 kv over 50 kv

Exemption: Scaffolds and conductive materials handled on scaffolds may be closer to power lines than the minimum separation distance specified if all of the following are met:

1. Less clearance is necessary to do the work
2. The utility company has been notified of the need to work closer to the power lines
3. The utility company has done at least one of the following:
    a. De-energized the lines
    b. Relocated the lines to meet the minimum separation distance requirement
    c. Installed protective coverings over the lines to prevent accidental contact

Mobile Elevated Work Platforms (Man-Lifts):

Responsibilities:
WAC 296-869: The Safety Administrator and workplace supervisors will monitor work activities to ensure the safety of employees using MEWP (Mobile Elevated Work Platforms), including the proper use and training. Employees will be responsible for contacting their immediate supervisor if they recognize any hazard or deficiency with the equipment they are using; or need additional training.

This section applies to the following:

- Extendable boom work platforms
- Articulating boom work platforms
- Scissor lifts
- Vertical towers
- Aerial ladders
- Bucket trucks

MEWP Operation Requirements:

- Only employees that are trained and authorized will be allowed to operate MEWP:
    - Operators must be trained on the type of MEWP they are operating
    - Operators must familiarize themselves with each specific model of MEWP prior to beginning work
    - Ensure all personnel are clear of MEWP prior to functional testing
- MEWP shall only be used as per the manufacturer's instructions and intended use
- MEWP shall be inspected prior to use and removed from service immediately if defective:
    - All safety devices must be working properly
    - Operators manual must be immediately available
    - Inspections shall be documented upon request

Work Area Hazard Assessment:

- The operator shall survey the workplace before using a lift to recognize the following:
    - Structural integrity of driving surfaces
    - Ditches and/or ground conditions
    - Drop-offs, uneven surfaces and floor obstructions
    - Debris
    - Overhead obstructions and electrical conductors or other electrical hazards
    - Weather conditions
    - Other personnel in the area
- Operators shall use spotters, caution tape, or other effective means of delineation to maintain safe operating conditions

Overhead Electrical Hazards

- Operator's shall contact their supervisor or the Safety Administrator if MEWP work must be done within 20 feet of any energized electrical source:
    - Powerlines shall be identified, and line voltage determined prior to MEWP operation
    - If line voltage in unknown, clearance of at least 20' shall be maintained
    - If line voltage is known, clearance of at least 10' shall be maintained for powerlines up to 50kv, plus an additional .4" for every kilovolt above 50kv
    - A spotter and raised warning line will be utilized to assist workers to keep safe clearance

Safe Operating Procedures:

- Maintain 3 points of contact during access and egress
- Footwear shall be clear of mud/snow prior to access
- Operators shall stand on the floor of the platform and NEVER climb or sit on the railings:
    - Operators shall not use planks, ladders or any other device to gain additional reach
- Personal fall protection must be used as required by the MEWP manufacturer:
    - Operators / workers using MEWP must have relevant training for the use of personal fall protection equipment
    - Railings up and gate closed
    - A full body harness and functional lanyard shall be worn by all persons in aerial boom lifts
        - The lanyard shall be attached to the manufacture's anchorage point
    - If MWEP are used to access another point, 100% tie-off shall be utilized
- No stunt driving, speeding or horseplay
- Be cautious on turns and stop at blind corners
- Sound horn when needed to make presence known
- MEWP shall not be used to hoist loads
    - Tools and materials must fit in basket
- Load limits specified by the manufacturer shall not be exceeded
- Watch for adjacent construction or overhead work being performed by others and avoid these areas
- The platform shall be in its safest (lowest) position and centered during travel
- Identify and stay clear of all pinch points
    - Other workers shall remain clear of all operating MEWP, and make eye contact with the operator prior to passing near

Rescue of fallen / suspended workers

- A method of rescuing suspended workers must be determined prior to lift operation, such as:
    - Person(s) in lifts shall not be in areas alone or unsupervised
    - Person(s) in lifts must have an effective means of communication
    - Operators must be familiar with the "emergency lowering procedures" for the specific machine they are operating
    - Ladders, secondary lifts or other effective means of lowering a suspended worker must be immediately available
    - Suspended workers suffering from impact forces must be medically evaluated

Material Handling & Storage:

Responsibilities:
WAC 296-155-040: The Safety Administrator and department supervisors will monitor work activities involving the handling of materials and implement measure to eliminate the chance of injury.

Materials being moved or stored shall be securely fastened to prevent tipping. When materials are being moved in close proximity to personnel, clear walk areas shall be maintained, or areas shall be delineated to prevent personnel from being struck. Materials shall not be moved or placed next to a walkway creating a pinch-point between the materials and a fixed object.

Storage:

- Store materials so they do not create a hazard
- Keep workplace storage areas free from accumulation of materials that could create hazards from tripping, fire, or explosion
- Secure stored items such as bundles, containers, and bags to prevent them from falling, sliding, or collapsing by doing one or more of the following
    - Stacking
    - Racking
    - Blocking
    - Interlocking
    - Otherwise securing them
- Make sure stored items are limited in height so that they are stable and secure to prevent sliding or collapse

Shelving:

- Rack Shelving shall be anchored according to manufacturer's guidelines and/or local building codes
- Shelving weight capacities shall be posted on shelving
- Shelving shall be protected from equipment hitting the supports
- Adequate clearance shall be maintained between shelving and sprinklers (check building codes)
- Loose materials shall not be stored on shelving or pallets above shoulder height
- Do not block access / egress routes, doors, electrical panels or hallways

Rigging / hoisting with material handling equipment such as chain falls, non-telescoping forklifts, com-a-longs, etc. <u>other than construction</u> (WAC 296-24 Part D):

- Operators shall be trained, and comply with all manufacturer's instructions, procedures, and recommendations applicable to the operational functions of equipment, including its use with attachments.
    - Hoisting equipment shall be operated only by designated, trained personnel
    - Inspections of hoisting equipment shall be in accordance with the manufacturer's guidelines, ASME standards, and OSHA regulations including:

        - Daily pre-use inspections
        - Annual Inspections by a qualified source
- Whenever any crane and/or hoisting equipment is found to be unsafe, or whenever a deficiency that affects the safe operation of a crane and/or hoisting equipment is observed, the affected equipment shall be immediately taken out of service and its use prohibited until conditions have been corrected.

Hoisting operation (working in fall zone):

- The work area encompassing the work and load travel path shall be controlled to prevent possible injury
- Weights of materials/loads shall be estimated prior to lifting to ensure the crane is operating within rated capacities, and rigging is appropriately rated for each lift
- No workers (or any part of the body) are allowed under a suspended load
- Only employees working directly with hoisting & rigging operations shall be allowed in the fall zone. (The "fall zone" is the area designated for rigging and hoisting activities)
- Workers shall make visual “eye-to-eye” contact with operators while working around equipment

The process of hoisting/rigging operations shall only be performed with the following controls

- Persons that are hoisting or rigging loads shall be sufficiently trained on the equipment they are using
- Attachment points must be engineered and rated
- Hoisting and rigging equipment shall be inspected prior to use and removed from service if damaged or if the user has doubt or suspicion as to its structural integrity
- The weight of all items lifted shall be determined prior to hoisting to ensure the equipment is not overloaded
- Tag lines shall be used with all lifts which have the potential to rotate or move unpredictably
- Non-rated chains (or any other nonrated equipment) shall not be used
- Workers shall not be under suspended load
- A designated Competent Person shall complete a documented rigging inspection on all rigging and hoisting materials at least annually

Rigging / hoisting with material handling equipment such as chain falls, non-telescoping forklifts, excavators and backhoes, <u>when used in construction.</u> A “Qualified Rigger” is Required. (WAC 296-155-336).

- All rigging activities must be performed by a qualified rigger or performed under the direction and supervision of a qualified rigger <u>(Reference crane section of this H.A.S.P.)</u>

Qualification Requirements:

- Know and understand the requirements for slings, rigging hardware, and below-the-hook lifting devices including their limitations, rigging practices, associated hazards, and inspection requirements
- Know and understand the application of the type of hitches used
- Know and understand load weight estimation, center of gravity, effect of angle on rigging components, and load turning

Ergonomics:

Responsibilities:
WAC 296-800-11010 & 296-155-040: The Safety Administrator and department supervisors will monitor work activities involving the handling of materials and implement measure to eliminate the chance of injury. Employees will be responsible for contacting their immediate supervisor with concerns regarding lifting, physical limitations, proper ergonomics, or PPE requests, as well as participating in the program.

- Redesign workstations and work areas to eliminate reaching, bending, or other awkward postures
- Provide adjustable tables and chairs that can be used by workers with a range of sizes and shapes, and that allow neutral postures
- Provide carts for transporting material and mechanical hoists to eliminate lifting
- Use tools that fit the hand, have no sharp edges, and eliminate awkward hand and wrist positions
- Rotate workers among different tasks to rest the various muscle groups of the body, reduce repetition, and ease mental demands
- Improve work scheduling to minimize excessive overtime or shift work which can cause fatigue
- Increase staffing to reduce individual workloads
- Provide sufficient breaks, since adequate recovery time can reduce fatigue
- Assign more staff to lifts of heavy objects
- Store heavy objects at waist height
- Follow good housekeeping practices, keeping floors free of slipping or tripping hazards.

Workers shall use caution when lifting heavy and awkward objects. When lifting over 25lbs, workers should:

- Ensure access points into work areas are sensibly safe to use
- Apply “Stretch &” Flex exercises or use back braces prior to strenuous work activities
- Use mechanical assistance (when feasible) such as a hand-truck, cart, or forklift
- Get assistance from a co-worker
- Practice safe lifting techniques such as lifting with your legs, rather than bending the back
- Do not strain to lift
- Do not twist while lifting or carrying heavy loads
- Immediately stop and get help if you feel like you are straining
- Workers shall yield to materials handling equipment and stay clear of storage areas while equipment is moving
- Workers shall wear cut resistant gloves when handling sharp objects

Heavy Equipment:

Responsibilities:
WAC 296-155-605: The Safety Administrator and department supervisors will monitor the use of equipment, and initiate controls to ensure the safety of workers and property. Employees will be responsible for contacting their immediate supervisor if they recognize any hazard with equipment.

Heavy Equipment Operation:

- Only trained and authorized operators shall operate heavy equipment
- Equipment shall be inspected daily prior to use and removed from service immediately if observed defective, or safety devices are not operating correctly
- Equipment must be used only as per the manufacturer's instructions, not modified in any way contrary to the manufacture's design that would change or prohibit the machines safety features or functionality
- Workers shall make eye-to-eye contact with equipment operators prior to passing near or walking behind equipment
- Areas around equipment creating pinch-points or other crush hazards (such as swinging counterweights) shall be controlled, or otherwise delineated to prevent worker injury or property damage
- Operator / Owner's manuals must be present on all equipment
- Spotters shall be used when trucks are backing into congested areas, operator visibility is limited, or as determined by the onsite Supervisor
- High visibility attire is required around moving equipment (reflectorized in hours of darkness)
- Certified Flaggers shall be used when working adjacent to a public roadway or pedestrians
- All equipment left unattended at night, adjacent to a highway in normal use, or adjacent to construction areas where work is in progress, must have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, to identify the location of the equipment
- Whenever the equipment is parked, the parking brake must be set. Equipment parked on inclines must have the wheels chocked and the parking brake set.
- Equipment components which are suspended by use of slings, hoists, or jacks must be substantially blocked or cribbed to prevent falling or shifting before employees are permitted to work under or between them
- Where traffic is diverted onto dusty surfaces, you must maintain good visibility by the suppression of dust, through the periodic application of oil or water to the grade surface, as required
- No equipment, vehicle, tool, or individual must operate within 10 feet of any power line or electrical distribution equipment except in conformity with the requirements of WAC 296-155-77100(1)(h)
- Bulldozer and scraper blades, end-loader buckets, dump bodies, and similar equipment, must be either fully lowered or blocked when being repaired or when not in use
    - All controls must be in a neutral position, with the motors stopped and brakes set, unless work being performed required otherwise

Hoisting/Rigging operations with construction equipment (WAC 296-155 Part F-1)
The process of Hoisting/Rigging operations with construction equipment shall only be performed with the following controls:

- A qualified rigger oversees all rigging
- All attachment points are engineered
- All rigging equipment shall be inspected daily and removed immediately if damaged
- The weight of all items lifted shall be estimated prior to lift to ensure machine doesn't tip unexpectedly
- Loads shall be flown as low as possible
- Tag lines shall be used to control loads and keep workers away from flying material
- Non-rated chains (or any other non-rated equipment) shall not be used
- Workers shall never be under suspended load, including any part of their body

Vehicle Operation:

Responsibilities:
WAC 296-155-610: The Safety Administrator and department supervisors will monitor the use of vehicles, and initiate controls to ensure the safety of workers and property. Employees will be responsible for contacting their immediate supervisor if they recognize any hazard with equipment.

Only authorized employees are permitted to drive company owned vehicles. Drivers must:

- Follow CPM policies
- Have a valid license
- Maintain a safe driving record
- Abide by all traffic laws
- Wear seatbelts (required for passengers also)
- Stay alert
- Not drive impaired from medications, drugs, or alcohol
- Not use cellular device for calls or texting unless equipped with a "hands free" device
- Watch out for pedestrians (giving them the "right of way")
- Keep your cool (no road rage)
- Secure tools and equipment to prevent anything from falling from the vehicle

CPM will stock in every company-owned vehicle:

- Flashlight
- ANSI Rated safety vest
- Fire extinguisher
- Reflective triangles or flares

In the event of a traffic or driving emergency, as it is safe to do so, move to the right shoulder or safe stopping area. Turn on your hazard lights to warn other traffic. If possible, stay in or near your vehicle on the side away from traffic. Call appropriate parties for assistance.

Motor vehicles on construction sites (WAC 296-155-610):
Vehicles (other than passenger cars and pickups) with an obstructed view to the rear:

- Must have an operable automatic reverse signal alarm audible above the surrounding noise level or a spotted utilized to ensure the safety of others

Operating dump trucks in reverse:

- Dump trucks must have an operable automatic reverse signal alarm:
    - Audible above the surrounding noise level; and
    - Audible no less than 15 feet from the rear of the vehicle
- Before backing a dump truck the driver must determine that no one is currently in the backing zone
    - If it is reasonable to expect that people will enter the backing zone, drivers must make sure the truck is backed up only when a spotter or back-up camera is utilized

Traffic Control:

Responsibilities

The Safety Administrator (with assistance from qualified source) will develop and monitor a traffic control plan when necessary, or applicable to specific projects, and initiate controls to ensure the safety of workers and property. Employees will be responsible for contacting their immediate supervisor if they recognize any hazard with traffic control.

General safety precautions around traffic:

- ANSI Class II High visibility clothing is required during daylight hours, ANSI Class III at night
- Housekeeping shall be maintained to mitigate slips, trips and falls, and to provide safe access
- Traffic control procedures must be enforced
- Speed limits must be enforced
- Employees shall maintain situational awareness and look out for others
- Employees shall face traffic while working, avoid backing whenever possible and use spotters as needed to ensure clear visibility
- Only qualified persons shall perform flagging duties

A traffic control plan will include:

Site-specific hazards such as:

- Road configuration and road type
- Limitations of visibility (distance)
- Traffic volume (congestion)
- Impacts on residential areas (pedestrians)
- Weather conditions (ice, snow)

Evaluation and of work procedures, and execution of controls:

- Work on roadway and/or shoulder work
- Stationary roadside exposure
- Hours of work
- Equipment access

Itemized Controls:

- Listing of qualified person(s)
- Identification and placement of traffic control devices or other warning devices
- Staging areas
- Traffic control person(s)

Emergency Preparedness

Emergency services may need to enter or go through a project site. Accordingly, access will be maintained throughout all traffic revisions, adjustment, and/or other work.

Excavation & Trenching:

Responsibilities:
WAC 296-155-650 through 296-155-66411: The Safety Administrator, Project Manager, Superintendents and Foreman will monitor excavation and trenching activities to ensure the safety of workers. Employees will be responsible for following the direction of a designated Competent Person, and contacting their supervisor if they recognize any hazard pertaining to their excavation and trenching work.

Designation:
OSHA defines an excavation as any man-made cut, cavity, trench, or depression in the Earth's surface formed by earth removal. A trench is defined as a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth of a trench is greater than its width, but the width of a trench (measured at the bottom) is not greater than 15 feet (4.6 m).

Trenching & Excavation activities must be supervised by a "Competent Person":
One who can identify existing or predictable hazards in the surroundings that are unsanitary, hazardous, or dangerous to employees. Also has authorization or authority by the nature of their position to take prompt corrective measures to eliminate them. The person shall be knowledgeable in the requirements of this part.

Three protective systems allowed to prevent a cave-in:

- Sloping, Shoring, Shielding.
- Trenches and excavations more than 4' deep or in unstable soil must be sloped, shored or shielded.
- Trenches more than 20'in depth, the protective system must be approved by an RPE.

Shoring / Shielding Concerns:

- Shield equipment "tabulated data" must be onsite to verify acceptable use
- Shields must extend 18" above a slope or excavation walls as necessary to protect workers from falling material.
- Shields may not protect workers from trench ends.
- Shields may be installed up to 24" from trench floor.
- Shields shall be installed in a manner to restrict lateral (or
    - other hazardous) movement in the event of the
    - application of sudden lateral loads.
- Workers may not work underneath suspended loads.
- Workers cannot be inside shields when being installed,
    - disassembled or moved vertically.
- Backfilling shall progress together with the removal of support systems from excavations.

General Requirements and Considerations while Excavating and Trenching:

- All surface encumbrances that are located that could create a hazard to employees shall be removed or supported, as necessary, to safeguard employees.
- Where the stability of adjoining buildings, walls, sidewalks, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees.
    - A registered professional engineer may be needed for approval and/or determination that such excavation work will not pose a hazard to employees.

- The location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be located prior to opening an excavation. (Call 811)
    - When excavation operations approach the location of underground installations, the exact location of the installations shall be determined by safe and acceptable means such as potholing.
    - While the excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard employees.

- Employees exposed to vehicular traffic must be provided with and must wear high- visibility garments (ANSI class 2 at "hours of darkness", more when flagging).
- A stairway, ladder, ramp or other safe means of egress shall be located in excavations that are 4 feet or more in depth.
    - In trenches, egress points shall be spaced not farther than every 25 feet laterally
    - Structural ramps that are used solely by employees as a means of access or egress from excavations shall be designed by a competent person.
    - Ladders must remain in the trench.

- 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.
    - 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 as necessary on the face to stop and contain falling material; or other means that provide equivalent protection.
    - Protection shall be provided by placing and keeping such materials (spoil) or equipment at least 2 feet (.61 m) from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

- 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 a clear and direct view of the edge of the excavation, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs.
- Employees shall not work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation. The precautions necessary to protect employees adequately 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 of a safety harness and lifeline.
    - If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operations shall be monitored by a competent person to ensure proper operation.
    - If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other 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 runoff from heavy rains will require an inspection by a competent person.
- Where oxygen deficiency, hazardous or explosive atmospheres exist, or could reasonably be expected to exist, such as in excavations in sewers, landfill areas or excavations in areas where hazardous substances are stored nearby, the atmospheres in the excavation shall be tested before employees enter excavations greater than 4 feet in depth.
- 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.
    - Look for cracks or fissures in soil
    - Take necessary precautions to prevent water from entering.
    - Is the soil pile at least two feet from the edge?
    - Is there adequate and safe means of access and egress?
    - Is there exposure to falling loads, rocks, etc.?
    - Is the protective system being used properly?

Prior to Excavating Site Assessment:

- Is there a competent person in charge?
- Did the competent person determine the soil type and how?
- Have underground locates been determined?
- Is there water present and can it affect the stability?
- Is there anything next to the edges that could fall or collapse?
- Is there exposure to vehicular traffic?
- Is there anything that could introduce a hazardous atmosphere into the trench?
- What type of protective system is in use?

The process of Hoisting/Rigging operations with construction equipment shall only be performed in accordance with LHE section of this HASP

The process of Hoisting/Rigging operations with construction equipment shall only be performed with the following controls:

- A trained Rigger oversees all rigging
- All attachment points are engineered
- All rigging equipment shall be inspected daily and removed immediately if damaged
- The weight of all items lifted shall be estimated prior to lift to ensure machine doesn't tip unexpectedly
- Loads shall be flown as low as possible
- Tag lines shall be used to control loads and keep workers away from flying material
- Non-rated chains (or any other non-rated equipment) shall not be used
- Workers shall never be under suspended load, including any part of their body

Confined Space:

Responsibilities:
Confined space work performed in permanent facilities and/or performed on construction sites shall be performed in accordance with WAC 296-809.

The Safety Administrator and department supervisors will ensure adequate training is completed, as well as manage, supervise and monitor confined space activities to ensure the safety of entrants. Employees will be responsible for following the direction of a designated Competent Person and contacting their supervisor if they recognize any hazard pertaining to confined spaces. The Safety Administrator shall assign a CSCP (Confined Space Competent Person) to categorize confined spaces to determine entry procedures. Trained supervisors (and/or CSCP) will also ensure confined space permits (or other applicable documents) are filled out correctly.

A CSCP is a person with thorough knowledge of confined space regulatory standards, has experience with permit required space entry procedures, has the authority to supervise and control how work is performed, can identify and classify all confined spaces and determine entry procedures.

Definition of a "Confined Space".

□ Large enough for a person to enter, and
□ Not intended for human occupancy, and
□ Limited or restricted means of access or egress

All workers (including subcontractor employees) entering a confined space shall be trained on the requirements of the specific confined space they enter. Records of the training must be submitted to the Safety Administrator prior to confined space entry.

Training of employees must be documented, and will including the following:

1. Designation of employees that have active roles including;

a. Program Administrator
b. Attendants and/or Entry Supervisors
c. Competent Person(s)
d. Entrants
e. Rescuers
f. Those who test or monitor atmosphere(s)

2. Identification of each designated employee's duties/roles:
    a. How to identify confined spaces and evaluate hazards
    b. How to complete documentation
    c. Safe entry procedures
    d. Use and maintenance of equipment
    e. How to prevent unauthorized entry
    f. How to coordinate entry with another employer
    g. How to rescue entrants

Additional training may include:

- Confined Space entry State regulatory requirements
- Recognition of potential hazards in spaces, including the symptoms of any hazardous materials
- Controls, including blanking and ventilation
- Warnings methods if controls fail
- PPE required
- Emergency procedures
    - ✓ The training on the emergency procedures shall include an exercise on retrieving a person from the confined space.

Training shall be documented including the date of training, name of individual trained, the trainer, and the topics covered. The training records shall be available for Government review.

Confined Space Category, Fundamental Assumption:

1. A "Permit Required" confined space is a space that contains either a physical or atmospheric hazard that CANNOT be controlled or eliminated. Entry must include, at a minimum:
    a. A written permit
    b. Designation of an Entry Supervisor
    c. Designation of an Entry Attendant
    d. An effective rescue plan (nonentry whenever feasible)
    e. Methods to prevent unauthorized entry
    f. A procedure for cancelling permit
    g. Other controls necessary to minimize risk and ensure the safety of the entrants such as:
        i. Atmospheric monitoring
        ii. Forced air ventilation
        iii. Appropriate PPE

iv. Lighting
v. Etc.

2. An "Alternate Entry" confined space is a space where monitoring and inspection data demonstrate hazards are not present, or the space contains (or has the potential to contain) a hazard that CAN be controlled or eliminated. When alternative methods are utilized, written procedures must identify how hazards (and potential hazards) are controlled or eliminated. Procedures will include at a minimum:
    a. Identity of the CSCP who authorized the use of the alternative methods and has the responsibility for ensuring safe entry conditions
    b. The hazards of the space
    c. The methods used to ensure that the hazards are eliminated or controlled
    d. The methods used to test and monitor the atmosphere within the space, where applicable, for all atmospheric hazards
    e. The methods used to determine if unsafe conditions arise before or during entry
    f. The criteria and conditions for evacuating the space during entry (like monitoring and test data)

<u>When using alternate entry procedures, controls such as having an Entry Attendant and a Rescue Plan may be omitted upon the approval of the Competent Person.</u>

Summary for Completing Documentation:

Permit Required Confined Space (PRCS):
The Competent Person has determined the space has one or more of the following characteristics:

1. Contains, or has a potential to contain a hazardous atmosphere that cannot be eliminated.
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.
4. Contains any other recognized serious safety or health hazard.

<u>Controls for entering a "permit required" space at a minimum may include:</u>

- Designation of Entry Supervisor and Attendant (may be the same person)
- Site specific training for Entrants, Attendant, Supervisor, and Rescue Team
- Continuous air monitoring
- Continuous forced-air ventilation
- PPE required for additional protection
- List of Authorized Entrants
- Protection from unauthorized entry
- Other controls to mitigate hazards (such as lighting, rescue equipment, lock/out – tag/out, etc.)

✓ A Comprehensive and effective rescue plan, including training for rescue workers must be completed prior to entering a "Permit Required" space. (Rescue process should be practiced to ensure its effectiveness)

- Non entry rescue procedures are required whenever feasible

✓ A procedure for canceling a permit must be established to ensure all workers have exited the space, and the space is secured to prevent unauthorized entry

Permit Required Confined Spaces shall be reclassified to Alternate Entry whenever feasible, or if/when the hazards are eliminated.

Reclassified Confined Space (Alternate Entry):
The Competent Person has determined the space has the potential for an atmospheric hazard, but continuous ventilation will be used to eliminate the hazard. Or, all hazards in the confined space have been eliminated or otherwise controlled or do not exist.

For Alternate Entry (as applicable):

- Verify Air monitoring has been performed to verify atmospheric conditions are safe, and results are logged
- Verify the use and/or need for continuous ventilation to ensure atmospheric conditions remain safe
- Verify lock-out/tag-out is in place to de-energize all interconnected components; and have been tested and verified to ensure worker safety
- Verify any other hazards such as physical hazards, engulfment hazards, or electrical hazards have been eliminated or do not exist
- Verify a method of rescue has been determined in the event any worker needs assistance egressing the space. Trained workers may proceed with entry

CPM's Safety Administrator will update this written program as necessary, such as when deficiencies are identified.

Lead & Asbestos Abatement/Control Plans:

Suspect projects will be evaluated for the potential to contact Asbestos-Containing Material (ACM) and Lead-Based Paint (LBP). **CPM employees will not handle ACM or LBP. Any lead or asbestos containing material will be abated by a licensed contractor.**

If the evaluation shows the potential for activities to generate unacceptable occupational exposure to LBP, a written lead compliance plan shall be written. The lead compliance plan shall be in accordance with OSHA 29 CFR 1910.1025 and 29 CRF 1926.62 and WAC 295-155-176.

If the evaluation shows the potential for activities to disturb ACM, an asbestos abatement plan shall be developed. The asbestos abatement plan shall be in accordance with 29 CFR 1910.1001; 29 CFR 1926.1101; and 40 CFR 61, Subpart M and WAC 296-62-077.

Asbestos Containing Material (ACM) is defined as any material containing more than 1% asbestos by weight. Many uses of asbestos have been banned under EPA and Consumer Products Safety Commission regulations. However, some materials where asbestos fibers are generally well bound in the materials were not banned. Previously installed products still pose a hazard to workers. Asbestos fibers can be released during repair work, demolition and renovation of older buildings and structures containing ACM. Asbestos is an inhalation hazard. Airborne asbestos fibers inhaled deep into the lungs can cause damage. Our body's defense mechanisms cannot break down the fibers and the fibers can cause damage to our respiratory system. Asbestos related diseases include Asbestosis, Mesothelioma, Lung Cancer and Other Cancers. Usually symptoms take 15 to 30 years or more to develop but the health effects from asbestos exposure may continue to progress even after exposure is stopped. Lung cancer causes the largest number of deaths from asbestos exposure and the risk greatly increases in workers who smoke.
Asbestos is most hazardous when it is "friable". Very small fibers stay in the air for long periods and damaged or deteriorated ACM increases friability. The following are common activities in the construction industry that result in workers inhaling asbestos fibers:

- Mechanical action on ACM (cutting, sawing, grinding, sanding, drilling or buffing).
- Disturbing/breaking ceiling tiles.
- Removing/replacing insulation.
- Disturbing sprayed-on asbestos.
- Damaged/deteriorated ACM
- Asbestos Abatement Projects
- Un-surveyed construction projects on older buildings (prior to 1981).

The Permissible Exposure Limit (PEL) is 0.1 fibers per cubic centimeter of air (0.1f/cc) during an 8 Hour Time Weighted Average (TWA) or 1.0 f/cc for Short Term Exposure Limits (STEL), which is 30 minutes or less.
CPM will implement the following measures to minimize employee exposure to asbestos:

- Perform a Hazard Assessment and Exposure Evaluation.
- Communicate the hazards associated with exposure to asbestos.
- Notify employees if medical monitoring is required.
- Provide access to medical surveillance and exposure records to all affected employees.
- Implement an Exposure Control Program, if the 8 hour TWA or STEL is exceeded.

Asbestos exposure must be controlled by one or more of the following engineering and work practices:

- Local exhaust ventilation with a HEPA filter system.
- HEPA-filtered vacuums.
- Enclosure or isolation.
- Wet methods.
- Prompt disposal.
- Housekeeping.

Worker training includes but is not limited to:

- Asbestos Awareness Training initially and annually.
- Work practices and safety procedures.
- Program elements
- PPE requirements: respirators, gloves, coveralls, head and foot protection.
- Hygiene facilities: decontamination and change rooms.

Entrances to regulated areas must have warning signs posted and only authorized/trained employees are allowed to enter the areas.

Building/Facility Owners responsibilities include but are not limited to:

- Determine the presence, location and quantity of ACM or Presumed ACM.
- Inform employers, employees and other who may be impacted.
- Have a "Good Faith" inspection performed before starting any bidding or construction work.
- Permit only certified individuals to perform work that may release asbestos fibers into the air.

The Good Faith Inspection/Survey must be done by an EPA-accredited AHERA (Asbestos Hazard Emergency Response Act) building inspector and must be a documented, written report. Failure to do so could result in fines of up to $250/day and both the building owner and the contractor can be cited. An Asbestos Training Certification is required when asbestos exposures are above the PEL's.

Asbestos Abatement Plan shall include the following:

- A description of each activity where asbestos will be disturbed, to include the OSHA class of work, equipment required, controls to be used, crew size, job responsibilities, maintenance practices, and locations matched to the project drawings
- Method of notification of other employers at the worksite
- Description of regulated areas, types of containment, decontamination unit plan, and engineering controls
- Air monitoring: Employee exposure assessment procedures shall address monitoring and documenting employee exposures.
  - ✓ An initial determination (may be omitted if there is sufficient objective/historical data showing compliance with the requirements)
  - ✓ Continued exposure monitoring may be required as a result of initial exposure determinations
  - ✓ Environmental monitoring shall demonstrate the absence of asbestos fiber migration outside the regulated area; and
  - ✓ Clearance monitoring to document that the area has met specified clearance criteria.
- PPE, including respirators and clothing
- Housekeeping procedures addressing prevention of spread of contamination both in and beyond the regulated area
- Hygiene facilities and uses
- Competent person and employee training
- Medical surveillance, as required to assess exposure and to monitor employee fitness to perform work tasks while wearing PPE (including respiratory protection devices)

- Waste generation, containerization, transportation, and disposal (including recordkeeping)
- Security, fire, and medical emergency response procedures

Lead Abatement Plan shall include the following:

- A description of work activity in which lead is emitted, to include equipment and materials used, controls in place, crew size, job responsibilities, operating procedures, and maintenance practices, work activity locations and lead containing components keyed to the project drawings
- Description of means to be used to achieve exposure compliance, including any engineering controls
- Employee exposure assessment procedures to monitor and document employee lead exposure
- Exposure monitoring shall include two types: (a) Initial determination (may be omitted if there is sufficient objective/historical data showing action level compliance according to the requirements); and (b) Continued exposure monitoring required as a result of initial exposure determinations.
- Protective clothing, housekeeping procedures to prevent spread of lead contamination both in and beyond the lead hazard control area, and hygiene facilities and practices to prevent employees from inadvertent ingestion of lead
- Administrative controls to limit employee exposure to lead, including employee rotation schedule to be employed, if engineering controls or PPE fail to eliminate exposures exceeding the PEL or TLV
- Medical surveillance procedures to monitor employee exposures and ensure fitness for wearing respiratory protection
- Competent person and employee training required
- Detailed sketches identifying lead hazard control areas, including decontamination areas and facilities, critical barriers, and physical and air distribution boundaries
- Perimeter or other area air monitoring outside or adjacent to the regulated area
- Security required for each lead hazard control area and Waste generation, characterization, transportation, and disposal (including recordkeeping)