Revised 10/2024

Groveland
CONSTRUCTION
Specializing in Masonry

Accident Prevention Program

Safety Orientation

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Management Safety Statement

Groveland Construction, LLC (herein referred to as the "Company") recognizes that safety and accident prevention is essential to our success and morale of business. We are dedicated to providing all leadership the tools to ensure a safe and healthy workplace. We will never compromise safety for production and schedule. All employees are empowered to recognize and correct any and all safety issues and potential hazardous situations.

The company safety & health program is developed based on our beliefs of a safe working environment for everyone alike, and so that we may help our employees in implementing an effective safety culture. The company will comply with all applicable local, state & federal requirements according to industry. Unsafe work will not be allowed within our company at any time.

The company is dedicated to the health and safety of all of its. It is our desire that everyone involved in our projects recognizes the value of adhering to our safety program, and we provide on-the job training as necessary to assure that all employees are aware of hazards on-site. We intend to provide full cooperation with all organizations and agencies regarding safety on the jobsite, in an effort to eliminate accidents and injuries.

It is the goal of the company to have 100% accident-free and injury-free projects. Toward that end, this Corporate Safety Plan will be supplemented by a Job Specific Safety Plan (JSSP) for each project. A Safety Manager, responsible for overall enforcement of the Corporate Safety Plan and Job Specific Safety Plan, will be ' designated for each project. All employees are required to read and demonstrate understanding of the applicable safety & health documents.

The company believes that accident prevention is a function of all levels of Management and Supervision. All levels of management are responsible for and shall be held accountable for the control of accidents. Our goal is to provide a safe work environment for all employees. Your health and wellbeing is your personal reward for practicing safe work habits and healthful activities.

Tim Carpenter

Groveland Construction, LLC

ROLES & RESPONSIBLITY

Project Manager

The Project Manager shall:

1) Begin all meetings with a safety review or safety topic discussion.
2) Actively participate in other area or project safety meetings and safety training.
3) Ensure the project under his/her control plans for safety in accordance with all policies and procedures.
4) Ensure implementation and execution of all injury and illness prevention policies.
5) Actively participate in lost-time, recordable, and serious incident investigations, completing initial notifications within 24 hours.
6) Take active role in all positive safety recognition and disciplinary safety actions.

Safety Manager

The Safety Manager shall:

1) Be an active participant of the Safety Committee upon request and support and contribute to all other safety committee efforts and weekly toolbox meetings within his/her area of authority.
2) Ensure the project plans for safety in accordance with all policies and procedures and shall be specifically involved in development of site-specific Job Hazard Analysis (JHAs) plans.
3) Schedule, assign and assist with monthly documented site safety self-assessment audits for each project.
4) Participate in new hire orientation, ensure new safety supervisors receive company policy and procedure instruction, and verify that on-going employee safety training satisfies safety training matrix and applicable certification requirements.
5) Be a valuable resource able to monitor company compliance with all regulatory and governmental safety standards, policies, and procedures.
6) Assist with investigation of any lost-time and serious incident investigations, completing initial notifications within 24 hours.
7) Ensure all safety communications are adequately distributed to all appropriate persons. Communications may include but are not limited to, changes in regulations, policies or procedures, incident alerts, near miss information and statistical safety data.
8) Collect and track pertinent safety data as required by the company.
9) Take active role in all positive safety recognition and disciplinary safety actions.

Foremen

The Foreman shall:

1) Conduct weekly toolbox meetings and begin all other meetings with a focus on safety.

2) Ensure each operation he/she works with plans for safety in accordance with all policies and procedures.
3) Monitor work conditions and practices by performing daily jobsite inspections to identify deficiencies so that corrective measures can be implemented.
4) Be familiar with and ensure compliance with all regulatory and governmental safety standards, policies and procedures applicable to each operation under his/her authority.
5) Have primary responsibility for ensuring all types of incidents (injury, near miss, vehicle, property, etc) are reported regardless of seriousness, and are documented in writing using the correct form within the proper time frame and through appropriate channels.
6) Take active role in all positive safety recognition and disciplinary safety actions.
7) Provide continuous reinforcement of safety practices and procedures for all employees on the jobsite and ensure that additional hands-on training and education are provided to workers as needed.

All Employees

Failure to comply with safe practices shall result in disciplinary action up to and including termination of employment.

The employee shall:

1) Attend and participate in toolbox and safety meetings as required.
2) Protect themselves and co-workers from hazards by being familiar with and understanding the operation JHAs and Daily Risk Assessments.
3) Immediately report to his/her supervisor any near miss/near hit incident, any unsafe act or condition, or any other workplace incident without fear of reprisal.
4) Seek assistance or training in unfamiliar situations.
5) Have the right to refuse work if conditions are deemed to be unsafe or hazardous.
6) Be an active participant of any safety committee upon request.
7) Be fully aware of and abide by all company policies.
8) NOT engage in cell phone use while on any job site with the exception of business communications via company issued devices, with every consideration given to safety precautions.

Record Keeping

OSHA 29 CFR1904 and 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 Groveland 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, lost 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)

EMERGENCY PREPAREDNESS

Purpose

The purpose of this policy is to provide the company with the appropriate actions to take in the event of an emergency.

Emergency Evacuation Plan

1) All company facilities and jobsite must have an emergency action plan in writing. It should include all employees, sub-contractors, and anyone who is onsite or in the facility.
2) An emergency alarm system must be established in each building to notify employees in the event of a fire.
3) Primary and secondary meeting areas need to be assigned for post evacuation. These areas need to be a safe distance away from the work area to conduct accurate head counts.
4) Assigned procedures should be in place to account for all personnel. One person and one alternate should be assigned the responsibility of conducting head counts at each meeting area.
5) A diagram with written instruction must be posted at each jobsite / office. There must be at least two evacuations routes for each location of the building or work area.

Emergency Preparedness General Requirements

1) All jobsites must have, at minimum, one person trained in First Aid /CPR & Bloodborne Pathogens. This person must be certified and remain on project at all times.
2) The following Emergency Telephone Numbers must be visibly posted on all jobsites / facilities.
    a) Ambulance, hospital, fire department & police department
    b) Company employees
3) Employees shall be informed of the written emergency preparedness procedures. This shall be documented and addressed in the safety orientation checklist and periodically reviewed at safety meetings.
4) Employees shall participate in any emergency preparedness drills.
    a) All exits must be clearly marked. Pathways should not be blocked. Exit doors shall never be locked. Doors that could be mistaken for exits must also be clearly marked.
    b) Emergency preparedness plans will be reviewed and updated as needed. All employees will be informed of any changes.

MEDICAL & FIRST AID PROCEDURES

Medical Services, First Aid & CPR Policy

First aid support, supplies, emergency response and planning are an important part of construction safety. The purpose of this policy is to ensure that the employees of Groveland Construction have emergency medical services available in accordance with the applicable local, state, or federal regulations.

General Responsibility

It is the responsibility of the superintendent to ensure that emergency planning is incorporated in jobsite safety. The jobsite emergency plan should be completed at the start of the project and updated as needed. This plan must be reviewed with personnel during weekly safety meetings on a as needed basis and posted for review.

Provisions shall be made prior to commencement of the project for prompt medical attention in case of serious injury. This shall include identifying the closest emergency medical centers, occupational treatment centers and ensuring a communications system is available to contact necessary emergency medical responders.

Although first aid training is available for all supervisory employees there will be no employee specifically “designated” as the first aid provider. Should an employee assist another person it shall be a voluntary act as a “Good Samaritan”, hence the Good Samaritan Laws shall cover the rendering of first aid or CPR.

First Aid Supplies

All jobsites shall have readily available first aid supplies and bloodborne pathogens kits. Large jobsites shall have a large first aid box fully stocked in one of the jobsite trailers and a portable first aid kit a reasonable distance away from workers. The minimum first-aid supplies in the large kits will meet or exceed suggested content of regulatory standards. The jobsite supervisor or on-site designated safety representative shall establish on a weekly basis that there is an adequate supply of first aid supplies available.

First Aid Supplies

- 2 large gauze pads 8” x 10”
- 100 count bandages
- 1 ½” x 7/8” 25 gauze pads
- 3” x 3” 25 count bandages
- 2” x 3” 25 count fingertip bandages

- 40 count knuckle bandages
- 100 count butterfly closures sm. or med.
- 1 pkg. elastic bandage
- 1 bandage scissors
- antibiotic ointment
- Wound cleaner
- anti-bacterial moist towelettes
- 4 pair latex or nitrile gloves
- 1 CPR mouth barrier
- 1 bodily fluids clean-up kit
- bee sting kit

Emergency Eye Wash Units

Approved, self-contained emergency eye wash units shall be readily available whenever hazardous, toxic or corrosive materials are handled.

Self-contained eye units must be within 50 feet of potential hazards and must be replaced or refilled after use per the manufacturer's instructions. Protective measures must be taken to prevent the eye wash fluid from freezing.

Eye wash stations shall be inspected regularly and kept clear and clean in accordance with the manufacturer's instructions.

Eye wash bottles may also be utilized at First Aid Kit Stations or placed wherever is deemed necessary. All eye wash bottles must be regularly inspected to verify the seal has not been broken and the solution is within the expiration period.

Transportation of Injured Workers

The job superintendent or other designated safety representative shall determine the need for transportation of an injured worker. Workers who have suffered electrical shock, head trauma, severe cuts, falls or other serious injury shall be transported by ambulance to the closest designated, appropriate medical clinic or hospital.

Emergency medical personnel (911) shall always be initiated for the following events, regardless of personnel wishes:

- Head trauma
- Electrical shock
- Excessive or uncontrolled bleeding

- Loss of consciousness
- Falls
- Fractures
- Cardiac arrest, heart attack or stroke
- Severe burns
- Severe allergic reaction (anaphylaxis)
- Other conditions that warrant emergency treatment

Note: For Bloodborne Pathogens please see Bloodborne Pathogens Policy

Blood Borne Pathogens, Needles and Exposure

Responsibilities:

WAC 296-823: The Safety Administrator and department supervisors will be available to ensure the safety of workers potentially exposed to blood borne pathogens, sickness or other medical concerns. Employees will be responsible for contacting their immediate supervisor or Safety Administrator if they recognize any hazard, believe they are ill, or need additional training.

Universal precautions will be applied 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:

- A body fluid disposal kit shall be available and used to clean up body fluids per the directions on the kit
- Workers shall not expose themselves to blood borne pathogens by handling bodily fluids without the proper PPE provided in the kit(s)
- Workers uncertain about procedures or 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 to blood or other 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 unsafe 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 your hands.

Needle Stick and Sharps:

The 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 (Never use your hands)
    - Always hold the needle tip away from you.
    - Put the needle, syringe, or glass stem in the container and close the lid securely.
    - Dispose of needles and syringes per community guidelines

Training

1) All First-Aid/CPR training will be documented and filed in the safety department, located in the corporate offices.
2) When employees receive their training through outside vendors, fire departments, etc. not arranged by the company, a copy of their certification of training issued by the training agent will serve as the documentation of the training.
3) At least one person shall be trained in First Aid / CPR per crew. (A crew is two or more people).Certifications are valid for two years.

DISCIPLINARY POLICY

The following represents the general procedure for discipline as it applies to the company.

Violation of company rules or unsatisfactory performance calls for disciplinary measures to minimize future occurrences. This may involve one or more of the following: verbal warning, written warning, suspension (with or without pay), or discharge. If in the opinion of the company a severe enough violation has occurred, the company has the legal authority to move past all levels of violation and immediately terminate an employee.

Administration of Disciplinary Action

All disciplinary actions shall be kept in the employee's file.

Types of Disciplinary Actions

Supervisors will use verbal and written reprimands, suspensions, and terminations as disciplinary actions.

Verbal Warning

a) A supervisor shall document a verbal warning and include the date, content, reasons, and the employee's reply. A memorandum covering the verbal warning may be included. A copy of the verbal warning documentation is to be forwarded to the payroll department for inclusion in the employee's personnel file.
b) When issuing a verbal warning, certain specific points should be covered. These include:
c) Talk to the employee away from the immediate working area and review past events.
d) Make sure the employee knows he/she is being counseled.
e) Document the facts of the reprimand using the Employee Disciplinary Conference Form.
f) Require immediate and sustained improvement.
g) Provide specific examples of help for the employee so the problem can be resolved.

Written Warning

A written warning is appropriate after a verbal warning has failed to correct the situation. State the nature of the violation and the details accurately.

In a written warning, the supervisor will:

a) Note the infraction involved. Be specific, focus on what was observed and heard, not what was rumored.
b) Note the company policy and/or rule, which was violated, along with the date of the infraction.
c) List all prior disciplinary actions and/or counseling for the same or similar offenses, which have taken place in the past.

d) State that the notice constitutes a written warning and will become a part of the employee's record.
e) Indicate that the written warning is to assist the employee with an opportunity to correct their actions.
f) Note to the employee that failure to correct the given situation will result in further disciplinary action up to and including termination.
g) Obtain the employee's signature acknowledging receipt of the warning. If the employee refuses to sign, note that on the form. A witness should then sign the form.
h) Forward copies of the warning to the payroll department to be placed in the employee's personnel file. The employee is also entitled to a copy of the warning.
i) Disciplinary Suspension

A disciplinary suspension, as with all other disciplinary actions, will be used at any time at the option of the supervisor depending upon the facts and circumstances of the incident. Employees may be suspended with or without pay, depending on the violation.

The same basic format for all other suspensions and the same rule of documentation applies as listed above.

Discharge

Discharge is always an option, but is typically, but not always, reserved for more serious infractions or after lesser disciplinary action has failed to correct the problem.

By way of illustration only, conduct that would normally be grounds for immediate termination would include falsification of application for employment; possession, use or sale of intoxicants; use of drugs as prohibited by the substance abuse policy while on the job; theft; unauthorized removal of company property from the premises; fighting; falsifying records; insubordination or safety infractions; threats of violence or sexual harassment.

TRAINING & EDUCATION

Training shall be conducted in a way that best suits the specific training topic and requirements. Some training must be conducted on the jobsite with the equipment or tools the training topic covers. Other training is best suited in a classroom style. Regardless of the style, training must be conducted that meets local, state & federal requirements, company policies and to provide optimum safety.

GENERAL REQUIREMENTS

1) Local, state & federal minimums require training for many construction methods and materials. Personnel shall be expected to either provide previous training, or the training shall be provided prior to the work activity or exposure. Project supervision shall ensure the space, materials, and time to provide required training.
2) The company field supervision is expected to obtain training that keeps them apprised of current and new regulations as well as new technology and company policies.
3) All jobsites shall have weekly safety meetings often referred to as tool box talks. These meetings shall cover the current condition of the project, the upcoming week's activities, safety inspections, site rules and emergency information. These meetings also are an effective means for providing safety instructions required by regulations.
4) Project Foremen will schedule weekly "Tool Box" meetings. Employees need to understand that attendance at Tool Box meetings is compulsory and a condition for employment.
5) Tool box presentations are most effective if you keep your talks timely. Gear your talks to safety problems you are having now or that you anticipate in the work ahead.
6) Keep a written record of the tool box meetings, an attendance roster and any specific topics reviewed for both internal use and to satisfy record-keeping requirements. Keep the original document in the job safety binder and forward a copy to the safety department upon request. Use the tool box talks safety meeting minute form.
7) All training conducted onsite must be documented. Contact the Safety Department for required documentation.

PROJECT SAFETY INSPECTIONS

GENERAL REQUIREMENTS

1) The company requires that the entire project team participate in site safety inspections.
2) Safety Inspections should not only include the physical condition of the project, but also the work methods that are being utilized by the workers as this is often a leading cause of injury.
3) Any identified physical hazards or work methods in need of improvement should be noted on an inspection report.
4) Hazards that cannot be corrected immediately or are serious in nature require a hazard correction notice to be issued to the supervisor for the work area or crew.
5) It is important that these hazard correction notices get closed out; this means the hazard corrected, the correction documented and verified, and the notice filed.
6) Each project should develop a system that appropriately addresses the needs of their specific site.
7) A record of each inspection shall be documented using an inspection checklist and filed in the jobsite safety files.
8) All inspections should be reviewed weekly during the toolbox safety meetings.

Regulations Regarding Construction Safety Inspections:

1) The company requires frequent and regular inspections of the jobsites, materials, and equipment to be made by competent persons designated by the employers.
2) A documented safety inspection shall be performed at the beginning of each job and at least weekly thereafter and the walk-around inspection
3) Safety inspections shall be documented and made available upon request.

POSTING REQUIREMENTS

SAFETY BULLETIN BOARD

A safety bulletin board or equivalent shall be utilized to increase employee's safety awareness and convey the company's safety message.

The following items are required to be posted in all states:

1) OSHA Poster
2) Workers Compensation Proof of Coverage
3) State Specific Minimum Wage
4) Citation and Notice If a Citation and Notice is received, it must be posted until all violations are abated.
5) Emergency Telephone Number Posted
6) OSHA 300 Summary (required February 1 thru April 30 of each year)
7) Unemployment Proof of Coverage
8) Smoke Free Workplace Law
9) Uniformed Services Employment Act
10) Federal Government EEO Compliance posting
11) Federal Family & Medical Leave Act
12) Federal Minimum Wage
13) Employee Polygraph Protection Poster
14) Your Rights as a Worker F242-191-909
15) Job Safety and Health Law F416-081-909
16) Self-insured: Notice to Employees — If a Job Injury Occurs F207-037-909
17) State fund: Notice to Employees — If a Job Injury Occurs F242-191-909

Required Workplace Posters (wa.gov)

Note: Additional information may be posted as determined necessary.

NEW HIRE ORIENTATION

Orientation/Training/Employee Education

Groveland Construction's goal is to perform work in the safest manner possible. Various levels of employee orientation, training and on-going education have been developed to enable employees to work safely. Effective employee training helps prevent damage to tools, equipment and materials while helping prevent or reduce hazardous exposures to employees and the general public that could result in personal or occupational injury.

New Hire Orientation

All employees shall attend pre-job training/orientation regarding the content of the company's safety program. In addition, a site-specific discussion by the company of potential site hazards, safe operating procedures and the safety goals of the company.

Orientation Checklists

New hire checklist shall be provided to each employee prior to orientation training. Only applicable sections shall be checked off during each orientation. The employee shall complete personal emergency contact information each time he/she receives a checklist so that current contact information can be attached to the employee's electronic personnel record.

Conducting Orientation

All crafts persons, management, visitors, and vendors must attend a safety orientation before entering the project.

** Revisions to the orientation information will be communicated to employees utilizing project bulletin boards, safety committee, and handouts to be included in toolbox meetings.

ACCIDENT & INCIDENT INVESTIGATION

The purpose of an accident investigation is to gather information, analyze the facts and implement solutions. All accidents that result in injury, property damage or a near hit that could have resulted in serious injury or extensive property damage need to be thoroughly investigated.

Accident investigations cannot be done by one person; they require input from the parties involved and site supervisors. They may even require the input of consultants or members of management, depending upon the circumstances. Failure to follow an employer's accident reporting policies may result in termination or may adversely affect workers' compensation benefits and/or result in disciplinary action.

ACCIDENT REPORTING PROCEDURES

An accident is any unplanned or unscheduled event or chain of events that causes or may cause personal bodily injury or property damage. The purpose of any safety program is to prevent accidents. Should an accident or near miss occur, however, there are certain steps that must be taken to effectively handle the accident.

1) First aid treatment and/or, transportation to or notification to appropriate professional medical help must be first and foremost. If the victim is unable to move without help, stabilize the individual and call for help.
2) Contact emergency medical transportation and the hospital.
3) Contact 911 for all head trauma injuries, electrical shock injuries, serious neck and back injuries, protruding broken bones, whenever the employee is unable to get up or walk on their own or any loss of consciousness.
4) Clear a path and help direct emergency vehicles to the appropriate area(s).
5) Secure the accident area for a thorough investigation.
6) Immediately notify the Project Superintendent and Safety Department
7) Any required regulatory reporting will be made by Safety Department. Federal OSHA and most state plans require notification of fatalities and/or catastrophes within 8 hours. Additionally, Washington State Labor & Industries requires overnight hospitalizations of one person be reported within 8 hours while Oregon OSHA requires the notification within 24 hours. Regulatory reporting for the specific jurisdiction will be verified anytime an overnight hospitalization occurs.
8) The foreman, superintendent and/or site safety representative will complete an Accident Report and any other necessary forms. Each respective employer must also complete his or her own documentation. These forms must be submitted to the Safety Department by the end of the shift.
9) If the injury or accident is serious, work will not continue in the are and tools and/or equipment involved will not be used until the accident cause has been determined and corrective action has been taken.
10) The employee shall complete all required forms as designated by our company. These forms must be completed immediately following medical treatment or while waiting for medical treatment. The employee should also be put in contact with the safety department immediately following medical treatment.
11) All employees requiring medical treatment due to an on-the-job injury shall submit a urine sample for a drug and alcohol test.

EMPLOYEE RESPONSIBILITIES REGARDING ON-THE-JOB INJURY/ACCIDENTS

1) Report all accidents/incidents, no matter how slight, to your supervisor immediately. Reporting on your next work shift is not an acceptable practice.
2) Tell your doctor that modified work is available to you.
3) Report your physician's findings immediately (within 24 hours) to your supervisor.
4) Immediately (within 24 hours) report to your supervisor your progress or findings after each subsequent physician's visit or other treatment.
5) You must report to your next scheduled shift once the doctor releases you to work (part-time, temporary, modified or regular)
6) Inform supervisor of Doctor Appointments at least 24 hours in advance and return all paperwork from the Doctor verifying the appointment if the appointment is during work hours.

PERFORMING THE ACCIDENT INVESTIGATION

1) **Initial Response**
    a. Take Control
    b. Ensure first aid and emergency services.
    c. Activate Emergency Preparedness Plan
    d. Control potential secondary incidents.
    e. Identify evidence.
    f. Preserve the scene and any evidence from alteration or removal. Post a guard if necessary. Limit people from accessing the accident scene.
    g. Notify appropriate managers or other personnel.
2) **Conduct Initial Walk-Through**
3) **Gather Information**
4) **Position**: Sketch, map, diagram, photograph, videotape, and aerial photos.
5) **People**: Identify witnesses, interview witnesses and supervisors.
    a. Keep the purpose of the investigation in mind.
    b. Approach the investigation with an open mind.
    c. Promptness will reduce the possibility of:
        i. Destruction of physical evidence
        ii. Forgetfulness of witnesses or victim
        iii. Interjection of opinion or conjecture by witnesses or victim after they evaluate the accident from their perspective; and
        iv. Witnesses and victims talking together and getting confused about what they know and what they've been told by others.
6) **Go To The Scene**. (Just because you're familiar with the location or the victim's job, don't assume that things are always the same.) Do not allow anyone to order you to move anything at the scene of a serious or potentially serious accident. This includes government personnel. The only items that shall be moved are those items that MUST be moved to allow for medical treatment of the injured. Even if we are working on a client's jobsite, they shall not require any company to move anything that can be construed as evidence or alter the scene in any way. If at any time this occurs, immediately contact the safety department.

7) **Parts (Physical Evidence)**: identify potential items (what's missing?), evidence in place, collect – do not clean, secure with chain of custody, retain (NOTE: try to keep scene intact until at least position, people and parts evidence is collected).
8) **Paper (Records & Other Historical Data)**: task procedures (JHA's; site safety plans), rules, records of inspections, maintenance, manager and employee training, engineering, purchasing, changes, communications, work histories.
9) **Analyze Evidence**
    a. List all losses and near-misses in the order in which they occurred.
    b. List the events / contacts leading to each loss.
    c. Identify immediate causes ("symptoms") of each contact (usually these can be seen, heard, touched, smelled, or tasted).
    d. Identify basic ("root") causes of each immediate cause (this should answer why each immediate cause existed).
    e. Identify any lack of management systems control: inadequate system, standards and/or compliance.
10) **Develop Remedial Actions**
    a. Temporary measures usually address immediate causes.
    b. Permanent solutions eliminate basic (root) causes.
    c. Set standards; establish proper work procedures.
    d. Changing the behavior of employees
    e. Discipline (not necessarily punishment)
11) **Complete Detailed Incident Investigation Report**

TIPS ON ACCIDENT INVESTIGATION

1) Every accident is caused. Carelessness is not a cause, but the result of some deficiency. Telling employees to be careful will not eliminate the real accident cause.
2) An accident investigation is not a trial to find fault or to place blame. It's purpose is to find accident causes so that corrective measures may be taken to prevent future accidents.
3) Most accidents result from a combination of human error (unsafe behavior) and a physical hazard (unsafe condition). Do not overlook the possibility of multiple errors and hazards.
4) Don't stop at the obvious answer. For instance, a missing machine guard does not cause an accident. The accident happened because the operator entered the point of operation. Determine why the operator did this and why the guard was off the machine. Only by correcting both problems can you prevent future accidents.
5) The accident investigation should be conducted as soon after the accident as possible. Facts should be gathered while the accident is fresh in the minds of those involved. If possible, question every employee who was involved, or witnessed, the incident. Delay interviewing injured employees until after medical treatment has been received.
6) Other employees who did not witness the accident but work in the area may contribute information regarding the injured workers' activities prior to the accident and conditions a the time of the accident.

7) The accuracy and completeness of the information received from the injured worker(s) and witnesses depends on how well the interview is conducted.

Supervisors Should:

a) Put employees at ease.
b) Ask what happened and how it happened.
c) Permit employees to answer without interruptions.
d) Show concern.
e) Remember, nothing is gained with criticism or ridicule.
f) Ask “why” questions only to clarify the story.
g) Repeat the story as you understand it.
h) Give the employee the chance to correct any misunderstandings that you have.
i) Photographs of the conditions as they exist immediately following the accident, including photos so the damaged equipment, are very helpful.
j) Damaged equipment should be removed or secured for future testing and used as evidence.
k) Take immediate action to correct any obvious unsafe conditions. Determine the basic accident causes and correct or recommend action to prevent reoccurrence.

RETURN TO WORK

EMPLOYEE INJURY REPORTING AND RECOVERY

No matter how hard we try, some accidents will occur. When they do, through accident investigations we can help identify underlying causes of accidents, a need for preventive measures, deficient training, lack of discipline and poor supervisor accountability. Thorough accident investigations can help identify third parties which may be legally and financially responsible for the incident. Careful investigations can also identify indirect costs of an accident.

Groveland Construction makes every effort to encourage prompt injury reporting, conduct an effective incident review and implement corrective measures to prevent other injuries and accidents. However, when an accident occurs that results in injury it is important that the claim be handled promptly and appropriately. The company makes every effort to return injured workers to a modified duty position whenever an injured worker cannot return to their regular job. To do so requires prompt communication with the Safety Department.

Injury and accident reports must be completed by the appropriate parties and forwarded to the safety department as soon as possible, but no later than the next calendar day. The appropriate incident report forms can be found in the jobsite binders.

RETURN TO WORK PROGRAM

Statistics have proven the longer an injured worker stays away from work the greater the likelihood for permanent disability and increased Workers' Compensation costs. In order to quickly return injured workers back to work and keep claim costs at a minimum, we have implemented a Return-to-Work Program (RTW). The following pages explain the RTW Program and the responsibilities of those involved.

It is the goal of the company to assist occupationally injured employees in returning to work as soon as possible. Our light/modified duty program is designed to provide an injured worker, who is currently unable to perform his or her regular job duties, with temporary working during the period of medical recovery.

Return to Work Procedures:

a) Upon notification of work-related injury, the supervisor reviews the employee's signed "Responsibilities Regarding On-The-Job Injuries/Accidents" form with the employee and insures the completion of the appropriate insurer forms by the worker along with both the Supervisor's Accident report and Employee's report of an accident form. The supervisor submits the completed forms to the Safety Department who will then make any necessary notifications.
b) The Safety & Health Director contacts the injured worker and physician to advise all parties of the company's light/modified duty program and the need for the completed work release/physical capacities evaluation. The injured worker shall report back to the supervisor with a completed work release/physical capacities form after every physician visit.
c) The supervisor reviews the work release/physical capacities form and identifies whether modified/light duty work is available within the worker's restrictions.

Consideration will be given to flexible hours, less lifting, use of a stool to eliminate standing, etc.

d) Light/modified duty is considered to be any work within the injured worker's physical capacities, as outlined. All light/modified duty positions must be approved by the personnel department and availability is subject to the business needs.
e) If the worker does not provide the work release/physical capacities evaluation, the Safety Department will send the physician a written request for this information.
f) Once the work release/physical capacities information has been obtained and a light/modified job identified and approved by the Safety Department, a job analysis of the light/modified duty position will be conducted and submitted to the attending physician for approval.
g) Upon receipt of approval for the light /modified position, the Safety Department will provide a written job offer of this position to the employee via certified mail and regular mail. If the worker is on the job, the jobsite will coordinate delivery of the job offer letter in person. The offer will include: the starting date and time, wage, and hours; to whom and the location where the worker is to report; and a description of the job duties.
h) Before the worker starts the light/modified job, the supervisor will meet with the worker and carefully review the job, outlining all job duties and the worker's limitations, as set forth by the treating physician. The supervisor should emphasize the need for the worker to perform the job duties within the limitations prescribed by the physician. The supervisor will then obtain the worker's signature on the job offer letter.
i) Should the worker refuse to accept the light/modified job offer, the supervisor will report this to the Safety & Health Director who will then notify the workers compensation insurer.
j) The supervisor sends a copy of the signed job offer letter and work release to the Safety Department who will then notify the workers compensation insurer.
k) The injured worker's light/modified duty work assignment will end when the worker is either released to regular employment, the worker's claim is closed, the worker has returned to other work which is not considered a part of the light/modified duty program or at such time as the company determines that business needs are not being served by the light/modified duty work assignment.
l) The supervisor is responsible for monitoring the injured worker's participation in the light/modified duty job and keeping track of the hours worked by the injured worker. This information will be submitted to the Safety Department. Any problems noted with the worker's participation in the light/modified duty job should be reported immediately to the Safety Department, who will then discuss the issue with the worker and physician and make any needed modifications.
m) The worker is responsible for providing the supervisor written notice of the physician’s recommendations of new restrictions and/or changes to the previously approved light/modified duty job. The supervisor will provide the recommendations of the necessary modifications to the Safety Department. Any

changes to the originally approved light/modified duty job must be approved by the Safety Department.

WORKPLACE VIOLENCE

PURPOSE

The company is committed to preventing workplace violence and to maintaining a safe work environment. Given the increasing violence of society in general, The company has adopted the following guidelines to deal with intimidation, harassment, or other threats of (or actual) violence that may occur during business hours or on its premises.

All employees, including supervisors and temporary employees, should be treated with courtesy and respect at all times. Employees are expected to refrain from fighting, horseplay, or other conduct that may be dangerous to others. Employees who wish to bring a weapon (for afterhours sporting purposes) must first disclose to company management their intent before bringing it into the workplace.

Conduct that threatens, intimidates, or coerces another employee, a customer, or a member of the public at any time, including off duty periods, will not be tolerated. This prohibition includes all acts of harassment, including harassment that is based on an individual's sex, race, age, or any characteristic protected by federal, state, or local law.

All threats of (or actual) violence, both direct and indirect, should be reported as soon as possible to your immediate supervisor or any other member of management. This includes threats by employees, as well as threats by customers, vendors, solicitors, or other members of the public. When reporting a threat of violence, you should be as specific and detailed as possible. All suspicious individuals or activities should also be reported as soon as possible to a supervisor. The company will promptly and thoroughly investigate all reports of threats of (or actual) violence and of suspicious individuals or activities. The identity of the individual making a report will be protected as much as is practical. In order to maintain workplace safety and the integrity of its investigation, the company may suspend employees, either with or without pay, pending investigation. Anyone determined to be responsible for threats of (or actual) violence or other conduct that is in violation of these guidelines will be subject to prompt disciplinary action up to and including termination of employment.

The company encourages employees to bring their disputes or differences with other employees to the attention of their supervisor or the Human Resources Manager before the situation escalates into potential violence. The company is eager to assist in the resolution of employee disputes and will not discipline employees for raising such concerns.

SUBSTANCE ABUSE POLICY

PURPOSE

Groveland Construction values its employees and recognizes their need for a safe and healthy work environment. Furthermore, employees abusing drugs and alcohol are less productive and are often a risk to the safety, security and productivity of our company. The establishment of a Substance-Abuse Policy is consistent with the company's desired culture and is in the best interest of the company.

POLICY

It is the policy of the company to maintain a workplace free from the use and abuse of drugs and alcohol. Compliance with this policy is a condition of continued employment. It supersedes any other company policy or practice on this subject. At any time, the company may unilaterally, at its discretion, amend, supplement, modify, or change any part of this policy. The policy does not represent an expressed or implied contract, and it does not affect your status as an at-will employee. If you have any questions about this policy, please direct them to Tim Carpenter.

To maintain a Drug and Alcohol-Free Workplace, the company has established the following policy regarding the use, possession, and sale of drugs and alcohol. Drug and alcohol testing practices will be adopted to identify employees or applicants using drugs and/or alcohol.

Drug & Alcohol Prohibitions

"Illegal Drug" means any drug:

- Which is not legally obtainable, or
- Which is legally obtainable but has not been legally obtained, or
- Which is a controlled substance. The term includes prescribed drugs not legally obtained and prescribed drugs not being used for prescribed purposes.

1) Any employee involved in any of the following activities at any time during the hours between the beginning and end of the employee's workday, whether or not on Company business, premises or property, is in violation of company policy and subject to disciplinary action:
    a) Bringing illegal drugs onto company premises or property, including company owned or leased vehicles, or customer premises
    b) Having possession of or being under the influence of illegal drugs; or
    c) Using, consuming, transforming, distributing or attempting to distribute, manufacturing or dispensing illegal drugs.
2) In addition, the company strictly prohibits the abuse of alcohol or prescription drugs.
3) Any employee refusing to cooperate with or submit to questioning, medical or physical tests or examinations, when requested or conducted by the company or its designee, is in violation of company policy and subject to disciplinary action.
4) The company strictly prohibits its employees from possessing, using, soliciting, distributing, manufacturing, purchasing, dispensing, or selling illegal drugs while

on company property or while conducting company business. Prohibition extends to all working hours as well as breaks and meal periods.

5) The company emphasizes that an employee's violation of this policy may lead to disciplinary action up to and including immediate termination of employment. Such violations may also lead to other legal and criminal consequences.
6) The company notes that the legal use of prescribed medication is permitted on the job only if it does not impair any employee's ability to perform the essential functions of his or her job effectively and in a safe manner.
7) The company also does not allow its employees to consume alcohol while on company premises or while conducting business-related activities off company premises.
8) The use, possession, transportation, or sale of explosives, unauthorized flammable materials, firearms, or other weapons by any contractor, sub-contractor, or their employees while on company premises, is prohibited.

Drug & Alcohol Testing

The company asserts its legal right and prerogative to test any employee for drug and/or alcohol abuse. Employees may be asked to submit to a medical examination and/or submit to urine, saliva, breath, and/or hair testing for drugs or alcohol. Any information obtained through such examinations may be retained by the company and is the property of the company.

In particular, the company reserves the right, in its discretion and within the limits of federal and state laws, to examine and test for the presence of drugs and alcohol (as stated above) in situations such as, but not limited to, the following:

1) **Post Job Offer**: All offers of employment will be made subject to the results of a drug test. Applicants will be required to voluntarily submit to a urinalysis test and sign a consent agreement which will release the company from liability. The company will not discriminate against applicants for employment because of past drug abuse. It is the current abuse of drugs which prevents employees from properly performing their jobs.
2) **Post-Accident**: An incident occurring while on company business that results in injury (requiring medical treatment) to an employee or others and/or damage to company property will require a drug and/or alcohol test. Failure to report any accident which meets the post-accident testing criteria is in violation of company policy and subject to disciplinary action. Employees testing positive, under certain state laws, may be ineligible for workers' compensation benefits.
3) **Random**: For the added safety and health of the company employees, as well as the direct impact on the company's profitability, image and reputation as a drug-free organization, all employees are subject to random, unannounced drug tests at any time the company deems necessary to ensure a Drug-Free Workplace.
4) **Reasonable Suspicion**: Current employees may be asked to submit to a drug and/or alcohol test if cause exists to indicate that their health or ability to perform work may be impaired. Although reasonable suspicion testing does not require certainty, mere "hunches" are not sufficient to meet this standard. Therefore, a reasonable suspicion test will only be conducted after careful consideration.

5) **Return-to-Duty**: Any employee who has been removed voluntarily or otherwise from his or her job assignment due to drug or alcohol abuse must agree to be tested on a random and discretionary basis anytime for up to 24 months from the return-to-work date.

Employee Assistance

A fundamental purpose of the company's Substance-Abuse Prevention Program is to assist employees and family members who suffer from drug or alcohol abuse. If you need confidential help with a drug or alcohol problem, contact Tim Carpenter. If eligible, you will be granted a medical leave of absence for rehabilitation. If you are enrolled in the company Medical Plan, your health care benefits may pay a portion of your rehabilitation costs. Any additional costs are the employee's responsibility.

It is the employee's responsibility to seek assistance before drug or alcohol abuse leads to disciplinary action. The employee's decision to seek prior assistance from the EAP will not be used as the basis for disciplinary action. Contacting Tim Carpenter will not be a defense to avoid disciplinary action where the facts proving a violation of this policy or giving rise to other disciplinary action are obtained outside of this consultation.

Disciplinary Actions

The company reserves the right to use disciplinary actions, up to and including termination of employment, depending upon the seriousness of the violation, the employee's present job assignment, the employee's record with the company, and other factors, including the impact of the violation upon the conduct of company business.

WRITTEN ERGONOMICS PROGRAM

FOR GROVELAND CONSTRUCTION

INTRODUCTION

Ergonomics is the study of people and their interaction with the elements of their job or task including equipment, tools, facilities, processes, and environment. It is a multidisciplinary field of study integrating industrial psychology, engineering, medicine, and design.

In a more practical sense, ergonomics is the science of human comfort. When aspects of the work or workplace exceed the body's capabilities, the result is often a musculoskeletal disorder (MSD). To help avoid MSDs, work demands should not exceed the physical capabilities of the worker. MSDs are also known by several other names including:

- CTDs (cumulative trauma disorders)
- RSIs (repetitive stress or repetitive strain injuries)
- RMIs (repetitive motion injuries)
- Overuse syndrome

The most common, recognizable name for MSDs is cumulative trauma disorders or CTDs. Whatever the name used, these injuries belong to a family or group of wear and tear illnesses that can affect muscles, nerves, tendons, ligaments, joints, cartilage, blood vessels or spinal discs of the body. MSDs do not include slips, trips and falls, cuts, motor vehicle accidents or other similar accidents; although a close look at the reasons for acute injuries often reveals design problems that can be corrected.

POLICY

It is the policy of Groveland Construction to provide all employees with a safe and healthy workplace. A proactive ergonomics program is integrated into our company's written safety and health program.

Records documenting the identification, prevention, and control of employee exposure to ergonomic risk factors will be maintained pursuant to all regulations.

This program is a collaborative effort that includes managers, supervisors, and labor. The Ergonomics Program Coordinator is responsible for the program's implementation, management, and recordkeeping requirements.

ERGONOMICS PROGRAM

The purpose of an ergonomics program is to apply ergonomic principles to the workplace in an effort to reduce the number and severity of MSDs, thus decreasing workers' compensation claims and, where possible, increase productivity, quality, and efficiency. An ergonomically sound work environment maximizes employee comfort while minimizing the risk of undue physical stress.

A proactive approach focuses on making changes when risks have already been identified, as well as incorporating ergonomics into the design phase of a new facility or process, into purchasing new equipment or tools, and into the contemplation of

scheduling changes. Groveland Construction has such a program which includes the following components:

1) **Management Leadership**. The management of Groveland Construction is committed to the ergonomics process. Management supports the efforts of the Ergonomics Program Coordinator and the Ergonomics Committee by pledging financial and philosophical support for the identification and control of ergonomic risk factors. Management will support an effective MSD reporting system and will respond promptly to reports. Management will regularly communicate with employees about the program.
2) **Employee Participation**. An essential element to the success of the ergonomics program, employees will be solicited for their input and assistance with identifying ergonomic risk factors, worksite evaluations, development and implementation of controls, and training. Employee participation in the program will occur only during company time.
3) **Identification of Problem Jobs**. Collecting data that identifies injury and illness trends is called surveillance. Surveillance can be either passive or active. Conducting a records review is an example of passive surveillance, which looks at existing data such as OSHA Logs, workers' compensation claims, trips to the medical facility, and absentee records. Active surveillance uses observations, interviews, surveys, questionnaires, checklists, and formal worksite evaluation tools to identify specific high-risk activities. Groveland Construction will be using both passive and active surveillance to identify problem jobs.
4) **Worksite Evaluations**
    - Triggers for a worksite evaluation
        a) When an employee reports an MSD sign or symptom
        b) Jobs, processes, or work activities where work-related ergonomic risk factors have been identified which may cause or aggravate MSDs.
        c) Any change of jobs, tasks, equipment, tools, processes, scheduling, or changes in work shift hours (for example, going from a traditional 5-day, 8 hour shift to a compressed 4-day, 10 hour shift).
        d) When a safety walk-through or scheduled inspection or survey has uncovered potential MSD hazards.
    - Work-related risk factors to be considered in the evaluation process include, but are not limited to:
        a) Physical risk factors including force, postures (awkward and static), static loading and sustained exertion, fatigue, repetition, contact stress, extreme temperatures, and vibration.
        b) Administrative issues including job rotation/enlargement, inadequate staffing, excessive overtime, inadequate or lack of rest breaks, stress from deadlines, lack of training, work pace, work methods, and psychosocial issues.
        c) Environmental risk factors including noise, lighting, glare, air quality, temperature, humidity, and personal protective equipment and clothing.

d) Combination of risk factors such as, but not limited to, highly repetitive, forceful work with no job rotation or precision work done in a dimly lit room.

Setting Priorities

Worksite evaluations will be scheduled based upon the following:

1) Any job, process, operation, or workstation which has contributed to a worker's current MSD;
2) A job, process, operation, or workstation that has historically contributed to MSDs; and
3) Specific jobs, processes, operations, or workstations that have the potential to cause MSDs.

Worksite Evaluations Methods

Various methods will be used to evaluate problem jobs including:

- Walk-through and observations
- Employee interviews
- Surveys and questionnaires
- Checklists
- Detailed worksite evaluations

Control of the Ergonomic Risk Factors

Groveland Construction will take steps to identify ergonomic risk factors and reduce hazards by using a three-tier hierarchy of control (in order of preference):

1) Engineering controls. The most desirable and reliable means to reduce workplace exposure to potentially harmful effects. This is achieved by focusing on the physical modifications of jobs, workstations, tools, equipment, or processes.
2) Administrative controls. This means controlling or preventing workplace exposure to potentially harmful effects by implementing administrative changes such as job rotation, job enlargement, rest/recovery breaks, work pace adjustment, redesign of methods, and worker education.
3) Personal protective equipment (PPE). Although not recognized as an effective means of controlling hazards and do not take the place of engineering or administrative controls, there are acceptable forms of PPE, which include kneepads and anti-vibration gloves.

Training

Training is intended to enhance the ability of managers, supervisors, and employees to recognize work-related ergonomic risk factors and to understand and apply appropriate control strategies. Training in the recognition and control of ergonomic risk factors will be given as follows:

a) To all new employees during orientation.
b) To all employees assuming a new job assignment.

c) When new jobs, tasks, tools, equipment, machinery, workstations, or processes are introduced.
d) When high exposure levels to ergonomic risk factors have been identified.

The minimum for all managers, supervisors, and employees will include the following elements:

1) An explanation of Groveland Construction's ergonomics program and their role in the program.
2) A list of the exposures which have been associated with the development of MSDs.
3) A description of MSD signs and symptoms and consequences of injuries caused by work and non-work-related risk factors;
4) An emphasis on the importance of early reporting of MSD signs and symptoms and injuries to management, and;
5) The methods used by Groveland Construction to minimize work and non-work-related risk factors.

Training will be provided in one, or a combination, of the following formats:

1) Oral presentations
2) Videos
3) Distribution of educational literature
4) Hands-on equipment and work practice demonstrations

Trainers will be experienced in delivering training programs that address all work and non-work-related risk factors, and will be familiar with Groveland Construction's operations. Training will be provided from one, or a combination, of the sources listed below:

1) Internally developed resources
2) The workers' compensation carrier
3) An outside consultant

All training will be documented:

All employees will be required to sign a training sign-in roster.

MSD (Medical) Management and Early Return-to-Work

Pursuant to the law, Groveland Construction provides medical care to all employees injured at work. Groveland Construction maintains a good working relationship with our health care provider, Concentra. All work-related injuries and illnesses will be referred to Concentra unless the injured employee has notified Groveland Construction in writing that other provisions have been made prior to an injury or illness.

In the event of a work-related injury or illness, the health care provider will:

- Provide diagnosis and treatment for Groveland Construction employees;
- Determine if reported MSD signs or symptoms are work-related;
- Comply with Groveland Construction's Early Return-to-Work program by recommending restricted, modified, or transitional work duties when appropriate;

- Refer Groveland Construction injured employees to other clinical resources for therapy or rehabilitation;
- Provide Groveland Construction with timely work status reports, and;
- Develop a positive working relationship with Groveland Construction workers' compensation carrier, DEPT OF LABOR AND INDUSTRIES.

Groveland Construction has an aggressive Early Return-to-Work program and will offer return-to-work opportunities to all injured employees in accordance with work restrictions identified by a recognized health care provider.

Program Evaluation and Follow-Up

In order to ensure that issues have been addressed and that new problems have not been created, monitoring and evaluation will be conducted on an on-going basis. The methods include use of individual interviews and checklists to reevaluate the job/task to ensure that risks have been reduced, minimized, or eliminated.

INDIVIDUAL RESPONSIBILITIES

Ergonomics Program Coordinator. The Ergonomics Program Coordinator will report directly to upper management and be responsible for this policy and program. All evaluations, controls, and training will be coordinated under the direction of the Ergonomics Program Coordinator in collaboration with management. The Ergonomics Program Coordinator will monitor the results of the program to determine additional areas of focus as needed.

The Ergonomics Program Coordinator will:

- Ensure that evaluators performing worksite evaluations and training are properly trained;
- Ensure that control measures are implemented in a timely manner;
- Ensure that a system is in place for employees to report MSD signs or symptoms and suspected work-related risk factors to managers and supervisors;
- Ensure that accurate records are maintained and provide documentation upon request;
- Schedule manager, supervisor, and employee training and maintain records to include date, name of instructor, topic, and materials used, and;
- Monitor the program on a quarterly basis and provide an annual review.

Managers

Duties of all managers will include:

- Accountability for the health and safety of all employees within their departments through the active support of the ergonomics program;
- Allocating human and/or financial resources;
- Attending ergonomics training to familiarize themselves with the elements of the program, recognition and control of work-related ergonomic risk factors, MSD signs and symptoms, early reporting requirements and procedures, and medical management;
- Ensuring that supervisors and employees have received the appropriate training;

- Ensuring that ergonomics practices and principles are considered when conducting worksite evaluations, and;
- Ensuring that recommended controls are implemented and/or used appropriately through active follow-up.

Supervisors

Duties of all supervisors will include:

- Attending ergonomics training to familiarize themselves with the elements of the program, recognition and control of work-related ergonomics risk factors, MSD signs and symptoms, early reporting requirements and procedures, and medical management;
- Ensuring that employees have received the appropriate training;
- Ensuring that employees are provided with and use the appropriate tools, equipment, parts, and materials in accordance with ergonomic requirements;
- Ensuring that employees understand the MSD signs and symptoms and early reporting system;
- Responding promptly to employee reports;
- Providing appropriate workers' compensation documentation to employees as required by all regulations;
- Seeking clarification from Human Resources when return-to-work directives from the health care provider are unclear, and;
- Maintaining clear communication with managers and employees.

Employees

Every employee of Groveland Construction is responsible for conducting himself/herself in accordance with this policy and program. All employees will:

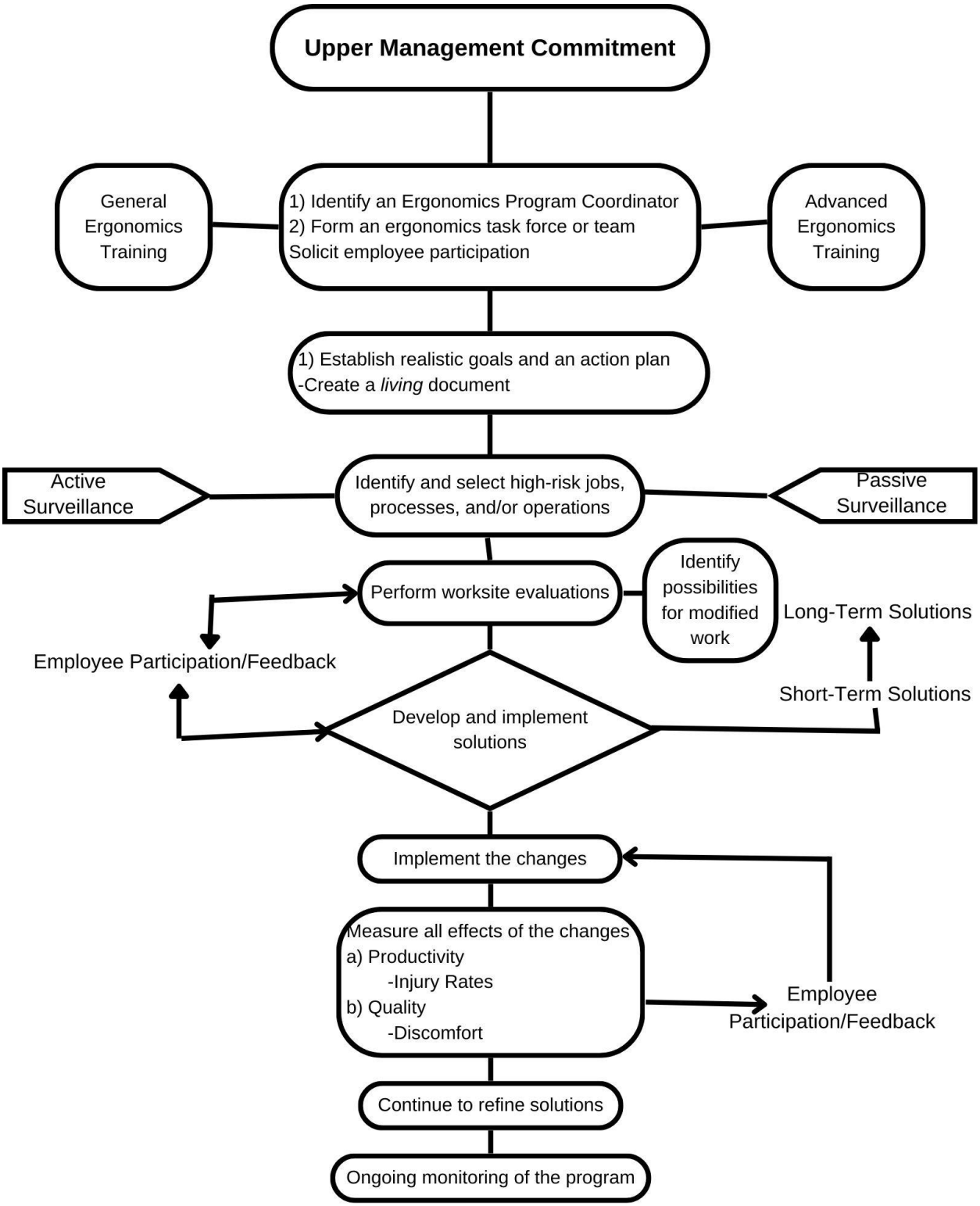
- When provided, use the appropriate tools, equipment, parts, materials, and procedures in the manner established by managers and supervisors;
- Ensure that equipment is properly maintained in good condition and when not, report it immediately;
- Provide feedback to supervisors regarding the effectiveness of design changes, new tools or equipment, or other interventions;
- Attend ergonomics training as required and apply the knowledge and skills acquired to actual jobs, tasks, processes, and work activities;
- Report MSD signs or symptoms and work-related MSD hazards to the supervisor as early as possible to facilitate medical treatment and initiate proactive interventions, and;
- Take responsibility in their personal health and safety.

Annual Program Review

The Ergonomics Program Coordinator will conduct an annual program review to assess the progress and success of the program. The review will consider the following:

- Evaluation of all training programs and records.
- The need for retraining of managers, supervisors, and employees.

- The jobs, processes, or operations which have produced a high incidence rate of work-related MSDs.
- The length of time between a request for an ergonomic evaluation and the actual evaluation.
- The length of time between the point at which the results of the evaluation are known and when implementation of controls begins.
- The length of time between the beginning and completion of implementation of controls.
- The program's success based upon comparison to previous years using the following criteria:
    - Number and type of lost workdays associated with OSHA recordable cases.
    - Cost of workers' compensation cases.
    - Employee feedback through direct interviews, walk-through observations, written surveys and questionnaires, and reevaluations.


Upper Management Commitment
General Ergonomics Training
1) Identify an Ergonomics Program Coordinator
2) Form an ergonomics task force or team
Solicit employee participation
Advanced Ergonomics Training
1) Establish realistic goals and an action plan
-Create a *living* document
Active Surveillance
Identify and select high-risk jobs, processes, and/or operations
Passive Surveillance
Perform worksite evaluations
Identify possibilities for modified work
Long-Term Solutions
Employee Participation/Feedback
Short-Term Solutions
Develop and implement solutions
Implement the changes
Measure all effects of the changes
a) Productivity
-Injury Rates
b) Quality
-Discomfort
Employee Participation/Feedback
Continue to refine solutions
Ongoing monitoring of the program

ASSURED GROUNDING / GFCI

PURPOSE

The performance of maintenance and construction work performed by the company. frequently requires the use of 120-volt ac powered hand tools and portable equipment. If tools and equipment are not properly wired and grounded, personnel using this equipment could be exposed to the danger of short-circuiting and associated electrical shock and shall use Ground Fault Circuit Interrupters (GFCI).

This program is designed to eliminate this shock potential. A thorough understanding of and strict cooperation with the program by all individuals using this equipment is essential for this objective to be realized. This program will be managed by the safety department of the company.

SCOPE

This program applies to:

1. The use of all 120-volt, single phase, 15 and 20-amp portable electrical equipment in the performance of maintenance, renovation and construction work.
2. All cord sets and receptacles which are not a part of the building or structure and equipment are not connected by cord and plug.

REFERENCES

WAC 296-155-447 “Wire Design and Protection”

These procedures for assured grounding shall be available upon request at the job site for inspection & copying by the Assistant Secretary & any affected employee.

EXCEPTIONS

- Cord sets equipped with a standard two or three prong household plug and used only in office areas are exempt from this procedure.
- 120—volt electrical tools, lights and appliances that are used exclusively inside (such as desk lamps, clocks, calculators, typewriters, engravers, etc.) are also exempt.
- On a two-wire, single-phase portable or vehicle-mounted generator rated not more than 5kW, where the circuit conductors of the generator are insulated from the generator frame and all other grounded surfaces, need not be protected with ground-fault circuit interrupters.
- All 120-volt, single-phase, 15-ampere and 20-ampere receptacle outlets which are not a part of the permanent wiring of the building or structure and which are in use by personnel shall have approved ground-fault circuit interrupters for personnel protection.

ASSURED GROUNDING

An Assured Grounding Program makes it possible for anyone to tell at a glance the status of 120-volt portable electrical equipment (extension cord sets, portable light sets, and portable tools) in the field. For those who opt to use an Assured Grounding

Program, the following procedures shall be adhered to, or similar procedures adopted that meet the standard:

1) A cord checked tag attached to each piece of equipment at the plug end tells the user that the equipment has been inspected and tested by an electrician. Also indicated on the tag is the date the equipment must be returned to the warehouse, (three months after issue).
2) The procedure does not permit use of 120-volt portable equipment in the performance of field maintenance or construction work unless a valid tag is attached.
3) For a three-month period, after checked portable equipment is first issued, it can be returned to the company warehouse for storage if it is clean, has not been abused, and shows no signs of needing repair. Otherwise, it should be returned to the company warehouse with the tag removed so that is can be repaired and retagged by a qualified person
4) Some 120-volt portable electrical equipment for use in maintenance and construction work is assigned to specific areas, shops or individuals. Individuals to whom this equipment is assigned are responsible for checking and insuring that all tags are up to date and in place.
5) Cord sets, portable lights, and portable tools will be issued ready for field use from the company warehouse.
6) Cord sets, portable lights and portable tools will be properly cleaned, inspected, tested and repaired and tagged as necessary by a qualified person.
7) Before being issued for use, all cord sets, portable lights, and portable tools must have the cord checked and the tag attached.
8) Each person using a cord set, portable light or portable tool is required by DOSH Standards to visually inspect this equipment before each day's use for defects such as deformed or missing pins or insulation damage, and for indicating of possible internal damage. If the tag is out of date (i.e., cord due for testing), tag is missing, or if equipment is suspected of being damaged or defective, immediate arrangements are to be made to return equipment to the company warehouse and taken out of service for repair. If damage or a defective condition is noted, this information should be noted on a tag and attached to the cord.
9) Inspection and testing of all 120-volt cord sets, portable light sets and portable tools connected with a plug and cord will be performed by a qualified person.

ELECTRICAL SAFETY

POLICY

The company has incorporated the following Electrical Safety Program to educate employees in recognizing and avoiding the dangers of electrical shock, electrocution, fires and explosions.

Electrical safety training will include safe methods for working in and around electrical hazards and will show how to avoid incidental contact with live electrical parts, lines and currents.

This program applies to temporary and permanent electrical installations on the jobsite. When proper methods are employed and hazards are recognized, the potential for employee injury, illness or death is eliminated.

DEFINITIONS

Amperage - The amount of electrical current carried in a wire or other conductor.

Current - A flow of electrical energy.

Grounded - When electrical circuit is connected to the earth.

Grounded Conductor - A device (white wire) intentionally connected to the earth.

Grounding Conductor - A device (green wire) used to connect electrical equipment to a grounding electrode.

Ground Fault Circuit Interrupters (GFCI) – These are fast acting circuit breakers which cut off electricity when small imbalances in the circuit caused by current leakage to the ground are detected. GFCIs are required on all electrical circuits used on projects. A documented Assured Equipment Grounding Conductor Program may also be required by contract. Generators, when used, shall be grounded to enable the GFCI's to work properly.

Receptacle - A contact point on the outlet for the connection of a single attachment plug.

Voltage - The greatest effective difference in electric potential between any two conductors of the circuit.

Company Responsibilities

The company is responsible for:

1) Ensuring electrical equipment has been approved by a qualified testing laboratory, and
2) Arranging proper equipment inspections by trained employees.
3) Periodically reviewing the electrical safety program effectiveness and providing recommended process improvements when needed.

Superintendent Responsibilities

The superintendent, or qualified employee designated by the superintendent, shall be responsible for:

1) Monthly (at a minimum) inspections of:
    - All tools
    - Branch circuits
    - Temporary and permanent lighting
    - Other electrical devices and equipment at least monthly.
2) Ensuring all unsafe equipment is effectively removed from service, and
3) Authorizing repairs when necessary. Repairs may be handled by an outside manufacturer or vendor, or may be performed in-house by a person qualified in electrical repair. Any repair shall have the continuity tested before use.

Crew Responsibilities

1) Individuals using or working around electrical equipment shall:
2) Be trained on electrical safety.
3) Abide by this policy.
4) Wear appropriate personal protective equipment all times.
5) Ensure a ground fault system is in use at all times.
6) Inspect any tool before use.
7) Immediately notify his/her direct supervisor if electrical hazards are present or discovered.

Standard Procedures

1) All electrical cords, plugs and receptacles shall be inspected before each use.
2) Cords with any cut in the external cover that exposes the internal wires shall not be used.
3) Cords that have been run over or are badly twisted shall be taken out of service.
4) Cords laid across a roadway shall be protected from being crushed.
5) End plugs or receptacles that are broken or cracked shall be taken out of service.
6) Cords shall not be hung by wire or other device that might cut the cord.
7) Cords or ends that have exposed inner wires shall be taken out of service.
8) Cords in temporary buildings or storage containers shall be protected from sharp edges.
9) All new generators shall have GFCIs built into the generator.
10) Cords shall be attached to GFCIs either at the source of the power or with inline protectors.
11) Temporary strings of lighting shall have protective covers on the light bulbs and the cords shall be secured with devices that won't cut the cords.
12) Portable generators and light plants shall be grounded according to the manufacturer's recommendations.
13) Construction personnel will use portable Ground Fault Circuit Interrupter's (GFCI) protection when using permanent or new building power outlets that do not contain GFCI protection.
14) Flexible power cords on tools and extension cords will remain in continuous lengths without splices, undamaged and with the wire strain relief at the plug end intact.

15) Personnel using power cords will need to inspect them for damages before they are used.
16) If Supervisory or Safety personnel find power cords that are damaged or have the plug ends pulled away from the cord and wiring is showing or if the ground pin is missing, they will remove them from service immediately and cut off the damaged areas and/or dispose of them.
17) Damages to the outside insulation sheathing or internal wire insulation of power cords is not acceptable and shall not be repaired with electrical tape, duct tape or splices. Damaged power cords will have the damages cut off and removed from service until a competent person can make the power cord shorter and install replacement cord ends. Otherwise the power cord will be destroyed and disposed of.
18) Some power tool male cord ends are not manufactured with a ground prong. When a particular tool is made with a ground prong and the tool cord does not presently contain it, then it will be taken out of service and repaired.
19) Extension cord male plug ends are designed to have the ground prong and must contain them; otherwise they will be removed from service and/or repaired.
20) Temporary power to construction personnel shall be equipped with GFCI protection.
21) Exterior temporary power panels and outlets exposed to the weather will be protected with a watershed cover and weatherproof outlet boxes.
22) Plug ends will not be used with Romex wiring. Typical plug ends are designed to be used with braided or extension cord type wire and not hard wire.
23) Temporary wiring supplied from electrical panels will be run through a knockout hole in the panel and secured with a panel box wire connector.
24) Wiring will be protected from sharp edges.
25) Temporary lighting will be tied into its own dedicated service and not the temporary service that is equipped with a Ground Fault Circuit Interrupter (GFCI). This will prevent the potential of a GFCI from activating and personnel finding themselves working in the dark.
26) Temporary lighting will be suspended independently from the structure to the top loop in the protective bulb basket with non-conductive coated wire.
27) Temporary lighting maintenance will take place periodically to maintain an illuminated workplace of at least 5-foot candles or greater.
28) Temporary wiring will not pass through doorways unless the door can be wedged open at all times or removed to prevent damaging the wiring. If this cannot be accomplished, then alternative means will need to be used, such as passing it through openings in the wall or floor.
29) Temporary wiring or power cords that are placed in the pathway of vehicles, equipment, pallet jacks or carts shall be protected from damage by suitable and adequate means. This could be by elevating them or placing them inside of conduits or adequate protective circumferences before burying them.
30) Unless a panel is currently being tended to, and a qualified electrician is performing work, electrical panel box covers will be kept in place at all times. This is to protect personnel from energized live circuits. Unprotected and energized electrical panels shall not be left open and/or unattended. Another option is for

the electrical contractor to lock the doors and have possession of the key. The electrical contractor is responsible for the safety of the space.

31) Temporary wiring and electrical cords will be suspended from ceilings or coiled up and hung on walls to prevent damage.
32) Temporary wiring and outlet power boxes will be mounted to walls or portable stands.
33) Outlet covers will be maintained on energized outlet boxes.
34) Unused open breakers in the electrical service panels will have proper blanks installed.
35) Knockout holes in electrical panel boxes will have proper blanks installed. Tape does not suffice.
36) Temporary wiring will have electrical tape on the wire-nuts to prevent displaced and possible exposure to electrical hazards during construction activities, unless mechanical crimp connectors are used.
37) Circuit identification shall be performed to determine the service and location that it provides for lockout and tagout purposes to protect those working in such areas.
38) When work on electrical systems is intended to take place a lockout and tagout program shall be developed and initiated by the related contractors prior to performing the work.
39) Each employee is required to check all power tools and cords for damages and defects prior to their use.
40) Assured Equipment Grounding Program's will not be authorized or implemented on all projects unless the contractor can verify and prove that the program is established and implemented in accordance with the applicable standards.
41) Exterior electrical panels will be installed in a partially enclosed structure with a watershed cover to minimize and prevent the hazard of rain and moisture.
42) Multiple plug electrical office strips will not be allowed for use on Grunley projects.
43) Splices in wiring systems will be performed accordingly in a grounded junction box with wire connectors mounting to the box.
44) Temporary lighting splices can be established as long as the wire nuts and splice area is wrapped with electrical tape and the splice is maintained at a height of 7' or greater off of the ground to prevent personnel and/or materials from hitting the splice. If equipment is being used in the area the splices must be elevated far enough above the height of the equipment where it will not be contacted.
45) Power cords will be kept off of the ground, placed in areas out of the way of being damaged, and kept out of door openings with swinging doors unless the door is wedged or otherwise blocked open.
46) Independent and/or separate two wire electrical wiring for temporary lighting or any other services will not be used.
47) Aluminum ladders are prohibited from use in electrical rooms and/or where electrical work is being performed


Electrical
Safety

HOUSEKEEPING

Orderliness and housekeeping are basic items that are a requirement in achieving the goal of no work injuries. It takes the cooperation and participation of each employee to keep work, warehouse, and storage areas orderly. The following shall apply to all employees:

1) Each employee must maintain good housekeeping.
2) All waste and debris must be removed after job completion or at least daily from the work area and placed in a trash container or staged so as not to constitute a hazard.
3) All aisles, stairs, passageways and ladders should be kept clean and free of slipping and tripping hazards.
4) Rags and waste impregnated with flammable or combustible liquids must be placed in fire resistant covered metal container until disposed of.
5) All elevated work areas must be kept clean and free of material that may fall such as loose scaffold boards, wire, pipe insulation, conduit, etc.
6) All tools, material and equipment shall be returned to the proper storage location when the job is complete.
7) Fire and safety equipment must be kept unobstructed.
8) Eating areas and toilet facilities must be maintained clean and sanitary
9) All scrap materials and debris will be cleaned up and removed from the work areas by the responsible contractor on a daily basis.
10) Trash dumpsters will be removed periodically and replaced to prevent overfilling, displacement of materials and to reduce the potential of rodent harborage.
11) Boardwalks, wire mesh grating and/or pedestrian mats will be provided as needed to prevent the transporting of dirt, dust, mud and water into sensitive areas of the project.
12) Pedestrian mats will be provided at the dust proof partitions and/or demising walls that divide the construction spaces for personnel to clean boots prior to entering into the occupied space(s).
13) Areas outside of the construction spaces/ demising walls shall be periodically maintained to prevent the migration of dust into occupied areas.
14) Stairs and walkways will be kept free of all materials, equipment, extension cords and debris.
15) All nails from used lumber will be removed or bent over as the material is taken apart and the nails are exposed.
16) Used lumber will be neatly stacked, stored and maintained.
17) Temporary steps to trailers and project areas will be constructed properly and maintained to prevent slips and falls.
18) Sweeping will be performed with the use of sweeping compound or wet misting to maintain dust control.
19) All construction materials will be maintained in an orderly fashion to assist in the reduction of potential injuries.
20) Employees performing trash and material cleanup/removal shall use protective gloves to prevent injury to the hands.

21) Hallways and corridors will be maintained throughout all construction areas for safe passage in the event of a fire (36" for aisles and 15-feet from the exterior of the building).
22) Safe passage shall be provided in stairways and corridors that are maintained free of debris and/or construction materials.

ENVIRONMENTAL MANAGEMENT

GOAL

The goal of this Environmental and Waste Management System (EMS) is to help control risks and potential for incidents, improve environmental compliance and reduce environmental impact and waste.

SCOPE

All employees shall be aware of, and comply with the intent of this Environmental Management System and follow established company, client and regulatory environmental regulations, policies and procedures.

RESPONSIBILITY

The company has the moral and legal responsibility to conduct our business with environmental protection as an integral part of every job we perform and to encourage proper segregation of waste materials to ensure opportunities for reuse or recycling.

TRAINING

All employees have been trained in the disposal of non-hazardous wastes, trash, or scrap materials. For wastes generated and classified as hazardous, employees must be trained to ensure proper disposal.

GUIDELINES

The following guidelines will be used to ensure environmental protection on the job.

1) Chemicals and oils must not be released into the air, onto the land or onto the water and non-paved areas.
2) On or near water are especially sensitive areas. It is critical that no chemicals, oils or other products be spilled onto any surface on docks, jetties, or into the water. This includes and is not limited to paint chips, sandblast media, garbage, PPE, etc.
3) All spills or release of hydrocarbons, acids, caustics and chemicals into the air, soil or waterways must be reported to your supervisor IMMEDIATELY and immediate action must be taken to stop the spill or release and prevent it from spreading.
4) The company will estimate the waste, trash and other scrap material that will be generated prior to work being performed so that the need for containers and waste removal can be determined so that containers, transportation and recycle systems are established.
5) All wastes must be handled in a responsible manner and recycled or minimized when possible. Wastes must be collected in appropriate storage containers; containers must be labeled, closed and stored properly.

6) Direct any question concerning waste management, handling and oil or chemical spill prevention to your supervisor, company health and safety, or the company environmental specialist.

Spills & Releases

All non-permitted releases to the air, soil or waterways must be reported IMMEDIATELY so as to help minimize their impact. In addition to stopping the release and cleaning it up, the company supervisor and client must IMMEDIATELY be notified of any spill or release. Immediate actions must be taken to stop the spill or release and prevent it from spreading.

The supervisor will report the release to the client and company management for evaluation to determine if, or what further action is required.

NOTE: IMMEDIATELY means, an event should be reported to your Supervisor as soon as a person has knowledge of a release.

Spill/Environmental Protection Plan:

Spills: Discharges of hazardous substance that adversely impact of threaten to adversely impact, human health, welfare or the environment and require an immediate response.

Spills are considered nonemergency if:

- There is no chance of it entering waterway
- It is less than 5 gallons
- The spill is rapidly contained, and contaminated materials are collected

Nonemergency spill Response Procedure:

1) Stop the spill
2) Contain the materials with appropriate absorbent material and eliminate possibility of reoccurrence.
3) Notify your supervisor and Safety Administrator for further direction.

Emergency Spills:

- There is immediate threat to human health or the environment
- It is a material not know to the person discovering the spill
- It has the immediate potential to enter, or has entered a drain, ocean, lake, waterway, or air
- Government assistance is required for clean up
- It caused an impact to operations
- It creates a sheen

SPILL Response Procedure:

Evaluate the nature of the spill from a safe distance; evacuate if dangerous conditions are present.

If safe to proceed:

1) Stop the Spill
2) Contain the material with appropriate absorbent and eliminate possibility of reoccurrence.
3) Block or barricade entries or access into waterways and/ or drains.

✓ If Spill has reached a waterway, deploy containment boom down current or as necessary to prevent the spill from

Prevent the spill from spreading and/ or cover with pads to collect all spill material possible.

Notify the applicable Project Manager, safety representative and Safety Administrator as soon as possible.

Emergency contacts for Spill release:

1-800-258-5990 (Washington Emergency Management Division)

1-800-424-8802 (National Response Center)

HAZARD COMMUNICATION

OBJECTIVE

The objective of this program is to provide guidance to all employees who handle or are exposed to hazardous materials so that they may perform their work safely. Some chemicals are specifically explosive, corrosive, flammable or toxic. They may also have properties that combine these hazards. To avoid injury and or property damage, persons who handle chemicals in any area of the work site must understand the hazardous properties of the chemical with which they will be working.

DEFINITIONS

Chemical

Any element, chemical compound, substance or mixture of elements and / or compounds Container A container is any bag, barrel, bottle, bowl, can, cylinder, drum, reaction vessel, storage tank that contains a hazardous chemical. (Piping or piping systems are not considered to be containers.) Exposure/Exposed Contact with hazardous material through any route of entry (inhalations, ingestion, skin contact or absorption, etc.) Potential (e.g. accidental of possible) exposure is included.

Hazardous Material

A hazardous material is any material or chemical which has a physical or health hazard. The exception is consumer products.

Health Hazard

A material or chemical for which there is statistically significant evidence that acute or chronic health effects may occur in exposed employees. Identity Any chemical or common name which is indicated on the Safety Data Sheet (SDS). The identity used shall permit cross-references to be made among the required list of hazardous materials, the label and the SDS.

Label

Any written, printed or graphic material displayed on or affixed to containers of hazardous materials or chemicals. Safety Data Sheets (SDS) Printed material concerning a hazardous substance, which is prepared in accordance with the regulatory code.

NFPA

National Fire Protection Agency

SAFETY DATA SHEETS (SDS)

SDS’ are provided by the chemical manufacturer to provide additional information concerning safe use of the product. At each job site, the SDS’ for chemicals, which are produced or imported are accessible to all workers through the supervisor or safety department upon request.

Employee Use of SDS

For SDS use to be effective, employees must:

- Know the location of the SDS sheets.
- Understand the major points for each chemical.
- Check SDS when more information is needed or questions arise.
- Be able to quickly locate the emergence information on the SDS.
- Follow the safety practices provided on the SDS.

LABELING REQUIREMENTS

All employees must be capable of reading and understanding the product warning labels. Where there may be a communication barrier between languages, translation of those warnings shall be provided. The following requirements apply: All containers will have the appropriate label, tag or marking that indicates any safety or health hazards.

All warning labels, tags, etc., must be maintained in a legible condition and not be defaced.

Incoming chemicals are to be checked for proper labeling. The company uses the NFPA diamond labeling system on all hazardous and non-hazardous products. Signs and labels applying to PPE are posted where applicable.

EMPLOYEE INFORMATION AND TRAINING

Initial Orientation Training All new employees shall receive initial orientation training covering the elements of the hazard communication and right to know program. This training will consist of general training for the hazards, proper storage, use, disposal, personal protective equipment requirements and emergency first aid procedures for hazardous material.

The training will be conducted by a safety representative or other qualified person and will include the following:

- Hazard communication standard.
- Location and availability of the written hazard communication program.
- Measures that employees can take to protect themselves from these hazards.

Annual Re-Training Annual hazard communication refresher training shall be conducted as part of the company’s continuing safety training program. Immediate on the spot training will be conducted by supervisors for any employee that requests additional information or exhibits a lack of understanding of the safety requirements.

PERFORM TASK

All non-routine tasks will be evaluated before the task commences, to determine all hazards present. This determination will be conducted with quantitative / qualitative analysis (air sampling, substance identification / analysis, etc. as applicable). Once the hazard determination is made, the safety department will determine the necessary precautions needed to either remove the hazard, or protect from the hazard (use of personal protective equipment) to safe-guard the employees present.

GENERAL CHEMICAL SAFETY

When the chemical properties of a material are not fully known, it should be assumed to be hazardous and used in as small quantities as possible to minimize exposure. The following general safety rules shall be observed when working with chemicals:

- Keep a list of the hazardous chemicals known to be present on the job site.
- Where employees must travel between work places during a work shift (multi job sites), the written program may be kept at a primary site.
- Keep the work area clean and orderly.
- Use the necessary safety equipment.
- Carefully label every container with the identity of its contents and appropriate hazard warnings.
- Store incompatible chemicals in separate areas.
- Substitute fewer toxic materials whenever possible.
- Limit the volume of volatile or flammable material if possible.
- Obtain and read the SDS.

CHEMICAL HAZARDS

Chemicals in the workplace present health hazards if they meet any of the criteria set by regulation in the hazard communication standard. These criteria are listed below:

Carcinogen

The chemical is considered a carcinogen if it is listed by the national toxicology program (NTP) annual report on carcinogens or has been found to be potential carcinogen in the international agency for research on cancer (IARC) monographs or by regulation standards.

Corrosive

A corrosive is a chemical that causes visible destruction or irreversible alteration in living tissue by chemical action at the point of contact. Irritant An irritant is a chemical that is

not corrosive but causes a reversible inflammatory effect on living tissue by chemical action at the point of contact.

Toxic

A chemical that is capable of causing injury or death, especially by chemical means.

Sensitizer

A chemical that causes a substantial portion of people exposed to it to develop an allergic reaction to normal tissue after repeated exposures to the chemical.

PHYSICAL HAZARDS

For the purpose of the hazcom standard, a physical hazard is defined as a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive), or water-reactive.

METHODS FOR DETECTING SPILLS & LEAKS

Visual, auditory, smell and sampling methods are used to detect the presence or release of a hazardous material.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

The purpose of personal protective equipment (suits, gloves, boots, respirators, etc.) is to prevent illness or injury to the wearer by reducing the hazardous or toxic substances to the extent that the exposure remains within the safe limits. All employees are encouraged to ask questions if they are not clear on the complete usage and limitations of the protective equipment. Employees are not to assume the protection factors of the equipment are adequate without referencing the proper selection guide and SDS.

PERSONAL MONITORING

Working environments that are suspected for being contaminated with harmful levels of hazardous chemical will be monitored according to recommended industrial hygiene methods by a qualified person. Methods used for collection and analysis of personal monitoring samples will conform to recognized industrial hygiene standards.

EMERGENCIES

In case of an emergency refer to SDS for Product information and if necessary, the Emergency Response Guide Book.

GENERAL HOUSEKEEPING

- Rinse emptied bottles that contain acids or flammable solvents before disposal.
- Do not place hazardous chemical in salvage or garbage receptacles.
- Do not dispose of chemicals through the storm drain system or on the ground.
- Do not dispose of highly toxic, odorous chemicals down the sink or sewer drains.

Each facility will provide written information on the following:

- Chemicals used in or stored in areas where the employee will be working.
- Location and availability of SDS.
- Recommended personal protective equipment.

FIRE PREVENTION & PROTECTION

FIRE PREVENTION

While workplace fires require trained fire fighters, all GROVELAND CONSTRUCTION employees should be trained to properly handle a small fire. This is especially true when performing the position of a fire watch. They should be familiar with the company's fire extinguishers, fire prevention and emergency procedures. This training shall be done on an annual basis or as new employees enter the work place.

An essential part of fire prevention is training on what elements need to be present for a fire to start. A very important part of fire prevention is good housekeeping. All employees shall be trained in the emergency procedures for each site they will be working. Part of that training shall be the emergency evacuation procedure and where to report to in an emergency.

Any employee fulfilling the function of a fire watch must be trained in the equipment they will be using to put the fire out. They shall be trained in what to do if an alarm sounds or a site evacuation is required. If a fire occurs that is beyond your immediate control, make sure emergency services are activated and withdraw to the designated area defined for the site you are working.

DEFINITION OF TERMS

Flash Point

The flash point is the lowest temperature of a liquid at which it gives off enough vapor to form an ignitable mixture with air near the surface of the liquid. Gasoline, for example, is an extremely dangerous fire hazard with its very low flash point (temperatures 0-50 degrees F). Other liquids, such as oil, may have higher (safer) flash points, but can be just as dangerous as gasoline in the presence of hot work. Flammable Liquids and solids having a flash point below 140 degrees F.

Flammable also refers to certain gases, such as acetylene. Combustible Liquids having a flash point above 140 degrees F. Generally safer than flammable liquids, however, combustible liquids, when heated will easily drop into the flammable range (below 140 degrees F), and became just as dangerous as flammable liquids. The term combustible also describes solid materials that can burn. Wood and other Class A fire materials, for example, are combustibles.

STATIC ELECTRICITY

Static electricity is generated in a number of ways; such as rolling tires over pavement, or the flow of liquids, solids, gasses, air, or steam through pipes or hoses, if the systems are not properly grounded. A static charge can ignite volatile vapors as easily as a match. Always make sure all equipment involved is properly grounded in order to discharge any accumulation of static electricity.

REQUIREMENTS

The company will ensure that portable fire extinguishers are provided for employees use in the workplace. Also, an educational program to familiarize employees with the

general principles of fire extinguisher use and the hazards involved in incipient stage firefighting.

1) Provide fire extinguisher training upon initial assignment and at least annually thereafter.
2) Provide extinguishers designed to control different types of fires.
3) Assure that portable fire extinguishers are subjected to monthly visual inspections and an annual maintenance check.
4) Documented visual inspection monthly.
5) Documented annual inspection performed by a qualified person.
6) Mount, locate and identify extinguishers so that you can get to them quickly.
7) No OPEN FLAMES or FIRES for heating devices or open burning will be left unattended.
8) Hallways and corridors will be maintained throughout all construction areas for safe passage in the event of a fire (36" for aisles and 15-feet from the exterior of the building) and exits will be clearly identified with signage.
9) Temporary heating devices will meet the following:
10) Heating devices will be installed in accordance with the manufacturer's guidance
11) Heaters in construction areas will have a safe clearance of 3-feet on all sides.
12) Heaters will be placed on a minimum of 1" of concrete or one layer of bricks or concrete blocks. No cardboard, wooden pallets or stands will be permitted.
13) Heaters will be placed no closer than 10' from combustible material, such as pallets, paper, lumber or trash.
14) Open flame heaters will be placed a minimum distance of 10' from liquefied petroleum gas (LPG) fuel sources. This does not apply to diesel/kerosene-fired salamanders which have the fuel storage attached to the burner housing. f. After hours heating with open flame heaters will require a full-time fire watch to stand guard and maintain the heaters.
15) Smoking is not allowed in the building(s) unless there is a designated smoking area.
16) Portable ABC fire extinguishers with at least a 10# rating or larger, unless otherwise required, will be available or located at the following areas:
    a. Provided for every 3,000 square feet of work area or within a maximum of 100' traveling distance for personnel and mounted at a height of 48"
    b. Outside of, but not more than 10 feet from, the door opening into any room used for the storage of more than 60 gallons of flammable or combustible liquids. c)No less than 25 feet or more than 75 feet from any outside flammable liquid storage area.
    c. On all tank trucks or other vehicles used for transporting and / or dispensing flammable or combustible liquids.
    d. Within 75 feet of the pump dispenser at refueling locations, lubrication and/or service areas.
17) Fire extinguishers will be inspected monthly for damages, seals, pins and charge on a monthly basis.
18) Fire hoses may also be used when water supply is available.
19) Site supervision will coordinate with the facility firehouse personnel in order to maintain and establish the location of fire lanes at the job site.

20) Flammable liquids, such as fuels will be stored in areas with adequate ventilation and in self-latching metal safety cans equipped with spark arrester screens.
21) Plastic or non-safety rated fuel cans are prohibited onsite..
22) Sources of ignition will be prohibited in areas where flammable liquids are stored.
23) No Smoking or Open Flame signage will be posted in areas where flammables are stored.
24) Flammable liquids, fuels, or compressed gas cylinders are to be stored in closed containers when not in use.
25) No more than 25 gallons of flammable or combustible liquid shall be stored in a room outside of an approved metal storage cabinet.
26) Unopened containers of liquids such as paints, varnishes, lacquers, thinners, and solvents, shall be kept in a well ventilated location free of excessive heat, smoke, sparks, flame, or direct sunlight.
27) Combustibles shall not be stored in gang boxes, but stored in locations with adequate ventilation.
28) Oxygen and acetylene bottles will be secured and stored overnight in carts or outside of the building.
29) Tanks shall be turned off and the lines bled to remove gases.
30) Gauges shall be removed when the compressed gas cylinders are not in use.
31) Compressed gas cylinders will be stored and transported in an upright secured position to prevent displacement. Unlike compressed gas cylinders will be stored 25’ apart or separated by a 1-hour fire rated wall.
32) Heating devices of the open flame type having exposed fuel below the flame are prohibited.
33) Ignition of flame or sparks will not be allowed in areas where flammable liquids are stored, handled or processed.
34) All spills of flammable liquids must be cleaned up immediately.
35) Proper ventilation will be provided in all areas where flammable liquids are stored, handled, dispensed or processed.
36) Flammable liquids dispensed from fuel tanks, 55 gal. drums or other similar storage containers will be equipped with an approved and grounded pumping system.
37) Small quantities of flammable liquids will be stored and transported in approved safety cans.
38) A welding and/or burning permit will be secured daily and prior to the commencement of hot work operations.
39) The Hot Work Permit is valid for one day only unless otherwise specified by the governing enforcement authority.
40) All the provisions noted on the Hot Work Permit shall be strictly enforced.
41) Hot Work Permits shall be issued for each contractor performing hot work in each separate area. Personnel are to keep a copy of the Hot Work Permit posted in each contractor’s individual work area. Personnel performing Hot Work will periodically be asked to show the permit to supervisory personnel at various intervals during the course of the project.

FIRE TETRAHEDRON

Fire is a chemical reaction involving rapid oxidation or burning of a fuel. It needs four elements to occur:

Fuel

Fuel can be any combustible material such as solid, liquid or gas. Most solids and liquids become a vapor or gas before they will burn.

Oxygen

The air we breathe is about 21% oxygen. Fire only needs an atmosphere with at least 16% oxygen.

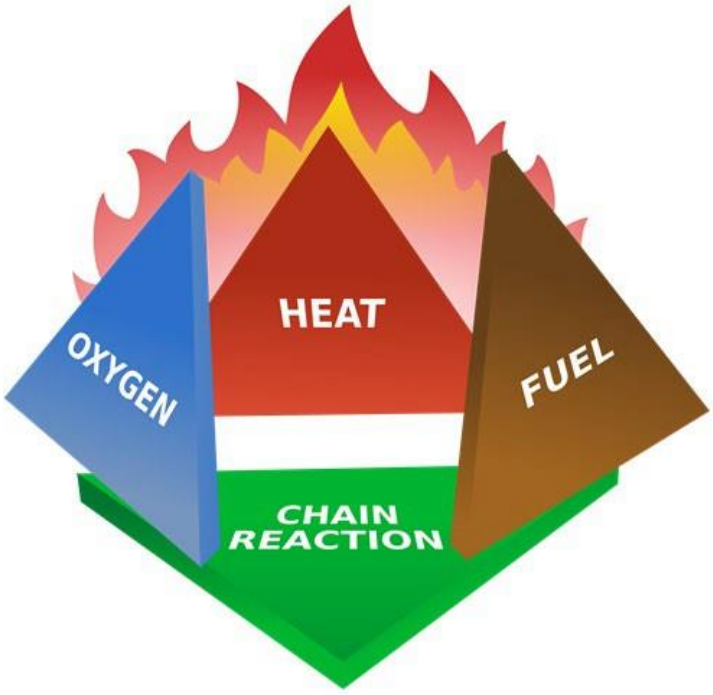
Heat

Heat is the energy necessary to increase the temperature of the fuel to a point where sufficient vapors are given off for ignition to occur.

CHEMICAL REACTION

A chain reaction can occur when the other three elements are present in the proper conditions and proportions. Fire occurs when this rapid oxidation or burning takes place.

Take any one of the fire triangle factors away, and the fire cannot occur or will be extinguished if it was already burning.



FIRE EXTINGUISHERS

CLASS A Extinguisher to Use

1) “A” – extinguishers have a number such as 1-A, 2-A, etc. The higher the number, the larger the fire that the extinguisher can handle (A 2-A can handle a fire twice as large as a 1-A).
2) Must be placed no more than 75 feet from an appropriate hazard.
3) May use water, water base foam, loaded steam or a multipurpose dry chemical.
4) Trash, wood, paper, cloth, rubber and some plastics.

CLASS B Extinguisher to Use

1) “BC” – number tell how many square feet the extinguisher can handle.
2) Must be no more than 50 feet from an appropriate hazard.
3) May use carbon dioxide foam, gases (halon 1211, halon 1301) or dry chemicals such as sodium bicarbonate. Fire
4) Flammable or combustible liquids (oil, gasoline, solvents, etc.).
5) Flammable gases, greases and some rubber and plastic materials.

CLASS C Extinguisher to Use

1) “BC” – based on pattern for existing class A or B hazards.
2) May use carbon dioxide foam, gases (halon 1211, halon 1301) or dry chemical such as sodium bicarbonate.
3) Electrical equipment

CLASS D Extinguisher to Use

1) “D” – must be kept within 75 feet of metal working area where combustible metal powders, flakes, shavings are produced at least once every 2 weeks.
2) Special materials such as dense dry powders.
3) Combustible metals such as magnesium, titanium, zirconium, sodium, lithium and potassium.

Note: You may use an “ABC” extinguisher for combination fires

FIRE EXTINGUISHING EQUIPMENT

Employees shall understand all policies pertaining to fire extinguisher use, limitations, maintenance, storage and handling. There are many types of extinguishing agents available to quell the different classes of fires.

Generally, a dry chemical extinguisher will be used for fire watch duty unless the site- specific requirement changes. The dry chemical extinguishes the fire by smothering or displacing the oxygen in the fire. Remember the fire tetrahedron- without oxygen, nothing can burn or continue to burn if already on fire.

Important: A 20 lb. dry chemical extinguisher can be emptied in approximately 30 seconds, when opened to full capacity. The smothering action of the dry chemical is temporary. The fire watch must remember that a fire can rekindle as oxygen again becomes available.

The possibility of this happening depends on a number of factors:

a) The type of material involved in the fire.
b) The temperature of the burned material.

c) The amount of oxygen available. A portable fire extinguisher, in ready conditions, must be taken to the hot work site prior to the job beginning. When choosing a fire extinguisher ensures that it contains a seal or pin securing the hose assembly.

DO NOT use extinguishers when the seal is broken or pin is pulled. You have no assurance that the extinguisher is in a charged condition. Unsealed, no-tagged fire extinguishers are considered empty and are not suitable for hot work fire protection.

DO NOT disturb the hose assembly seal except in case of a fire. When transporting to the work site, handle the extinguisher carefully.

DO NOT use the emergency extinguishers located throughout the facility or work site.

DO NOT leave extinguishers where they are exposed to temperature extremes.

DO NOT leave your extinguisher at the work site. Always return extinguisher to their proper location.

PORATBLE EXTINGUISHER USE

P - Pull the pin.

A - Aim extinguisher nozzle at the base of the flames.

S - Squeeze trigger while holding the extinguisher upright.

S - Sweep from side to side, covering area of the fire with the extinguishing agent.

Remember:

a) Should your path of escape be threatened.
b) Should the extinguisher run out of agent.
c) Should the extinguisher prove to be ineffective.
d) Should you no longer be able to safely fight the fire.

Leave the area immediately!

a) If you or another worker should catch on fire:
b) Stop where you are.
c) Drop to the floor or the ground.
d) Roll around over and over. This will smother the flames, possibly saving your life.

Just remember to STOP, DROP and ROLL.

If a co-worker near you catches on fire, smother the flames with a blanket or rug and wrapping them up in it. This could save them from serious burns or even death.


HOW TO USE
FIRE EXTINGUISHER
Remember the acronym PASS
P – Pull the pin
A – Aim the nozzle at the base of the fire
S – Squeeze the handle
S – Sweep from side to side

Wildfire Smoke Prevention

Groveland Construction, location, and date

Introduction:

Wildfire smoke is a health hazard for our employees when it is smoky. This wildfire smoke plan includes our policies and procedures related to protecting our employees from exposure to wildfire smoke. This plan was created to meet the Washington State workplace wildfire smoke regulations (Chapter 296-820 WAC and WAC 296-307-09805 through 09860 for agriculture).

The specific jobs and tasks at our workplace that that are covered under this wildfire smoke plan include:

Masonry

Health Effects and Adverse Symptoms of Wildfire Smoke

Although there are many hazardous chemicals in wildfire smoke, the main harmful pollutant for people who are not close to the fire is ‘particulate matter’, the tiny particules suspended in the air.

These tiny particles can reach the deepest parts of the lungs and can be absorbed into the body. The Environmental Protection Agency has determined that particulate matter may cause or worsen cardiovascular disease, respiratory disease, cancer, and can harm the nervous system.

Exposure to particulate matter in wildfire smoke can cause a wide range of symptoms including (but not limited to):

- Respiratory:
    - Cough
    - Difficulty breathing
    - Wheezing
    - Shortness of breath
    - Asthma attack
    - Runny nose
    - Sore throat
    - Sinus pain or pressure
    - Phlegm
- Cardiocascular:
    - Chest pain or discomfort
    - Fast or irregular heartbeat
    - Feeling weak, light-headed, faint or dizzy
    - Pain or discomfort in the jaw, neck or back
- Symptoms concerning for a stroke:

    - Sudden numbness or weakness in the face, arm, or leg, especially on one side of the body
    - Sudden confusion, trouble speaking, or difficulty understanding speech
    - Sudden trouble seeing in one or both eyes
    - Sudden trouble walking, dizziness, loss of balance, or lack of coordination
    - Sudden severe headache with no known cause.
- Headache, scratchy or irritated eyes, fatigue or tiredness, or nausea or vomiting.

Symptoms requiring immediate medical attention can include, but are not limit to:

- Symptoms that can lead to a heart attack, such as:
    - Chest pain or discomfort
    - Feeling weak, light-headed, faint, or dizzy
    - Pain or discomfort in the jaw, neck, or back
    - Pain or discomfort in one or both arms or shoulders
    - Shortness of breath, especially if accompanied by chest discomfort
- Symptoms that can lead to a stroke, such as:
    - Sudden numbness or weakness in the face, arm, or leg, especially on one side of the body
    - Sudden confusion, trouble speaking, or difficulty understanding speech
    - Sudden trouble seeing in one or both eyes
    - Sudden trouble walking, dizziness, loss of balance, or lack of coordination
    - Sudden severe headache with no known cause
- Wheezing, difficulty breathing, or shortness of breath
- Asthma attacks
- Nausea or vomiting
- Any symptom that is concerning or per a health care providers advice.

Our employees may follow medical advice they have been given or seek medical attention for any symptoms they may experience that are potentially related to wildfire smoke exposure, regardless of the severity. Groveland Construction will not retaliate against our employees for seeking medical attention or following medical advice they have been given.

Additionally, sensitive groups are people who are more at risk of experiencing the adverse health effects of wildfire smoke. These sensitive groups can include:

- Outdoor workers.
- Smokers.
- Workers under 18 or over 65 years old.
- People with respiratory infections, like colds. Conditions can include pneumonia, acute bronchitis, bronchiolitis, colds, flus, or those recovering from COVID-19.
- People with certain medical conditions like lung diseases, heart or circulatory problems, diabetes, pregnancy, and other conditions. Conditions can include asthma, COPD, bronchitis, emphysema, irregular heartbeat, congestive heart failure, coronary artery disease, angina, those who have had a heart attack or stroke, and those with medical conditions that can be worsened by exposure to wildfire smoke as determined by a medical provider.
- Tribal and indigenous people.
- People with low income.

Wildfire smoke is a serious work-related hazard for exposed outdoor workers. It is

important to notify us when an employee is experiencing symptoms of wildfire smoke exposure so we can respond appropriately. Our employees must watch for symptoms of wildfire smoke exposure as a sign to reduce exposure. Wildfire smoke can harm healthy people. The smoke can harm someone even if they are exposed over a short period or a long period. Wildfire smoke is harmful even if there is no smell or symptoms. The wildfire smoke rule is designed to limit the harm to employees from wildfire smoke.

By law, we will **not** retaliate against our employees for:

- Reporting symptoms,
- Seeking medical attention,
- Following medical advice they have been given,
- Or for filing a workers' compensation claim.

Note: Our employees have the right to file a workers' compensation claim to have their symptoms or any work related injury evaluated. Labor & Industries workers' compensation is in part funded by employee salaries and is separate from personal health insurance. In most cases, Labor & Industries will pay for an initial medical evaluation, even if the claim is denied. If the claim is allowed, the workers' compensation system will cover medical bills directly related to our employees condition and partial wage replacement benefits if our employee cannot work.

Identification of Harmful Wildfire Smoke Exposures

The main pollutant in smoke is the small particles in the air called fine particulate matter, also called $PM_{2.5}$. $PM_{2.5}$ measurements are reported in two ways:

- As micrograms per cubic meter ($\mu g/m^3$), or
- NowCast AQI for $PM_{2.5}$, which is an index produced by the EPA to communicate general air quality based on $PM_{2.5}$. AQI stands for "air quality index".

The wildfire smoke regulations require employers look at hourly $PM_{2.5}$ averages, which is reported as "Current $PM_{2.5}$". NowCast Air Quality Index (AQI) for $PM_{2.5}$ can also be used, which is a unitless index which uses $PM_{2.5}$ data averaged over the past 3 to 12 hours. The EPA is updating how the Air Quality Index relates to $PM_{2.5}$ beginning May 6, 2024, and L&I rules will be updated to reflect those changes. The levels of smoke and particulate matter in the air which require action are not changing.

The Supervisor will determine employee exposure to current $PM_{2.5}$, to protect the health of our workers. We will use one of these methods to determine employee exposure to the Current $PM_{2.5}$:

☒ Washington's Air Monitoring Network Map from the Washington Department of Ecology website

☒ Air Quality WA mobile app (Links to the mobile apps are located in the "Online tools" section)

☐ Washington Smoke Information blog

☐ Fire and Smoke Map from the US Environmental Protection Agency (EPA)

Our employees can obtain the Current $PM_{2.5}$ by: Viewing Washington Air Monitoring Network

Summary of the Wildfire Smoke Rule Requirements

The following table summarizes the key requirements of the rule. See the wildfire smoke rules for more details. The EPA is updating how the Air Quality Index relates to $PM_{2.5}$ beginning May 6, 2024, and L&I rules will be updated to reflect those changes. The levels of smoke and particulate matter in the air which require action are not changing.

Current $PM_{2.5}$	NowCast Air Quality Index for $PM_{2.5}$ until May 6, 2024	NowCast Air Quality Index for $PM_{2.5}$ Beginning May 6, 2024	Requirements at Current $PM_{2.5}$ Level
0.0-20.4 $\mu g/m^3$	0-68	0-71	• Prepare a written wildfire smoke response plan. • Provide wildfire smoke training to employees. • Watch the $PM_{2.5}$ conditions and forecasts. • Prepare a two-way communication system and notify employees of $PM_{2.5}$ conditions. • Make provisions for prompt medical attention, and permit that medical attention without retaliation.
20.5-35.4 $\mu g/m^3$	69-100	72-100	All of the above and: • Notify employees of $PM_{2.5}$ conditions and forecasts. • Ensure only trained employees work outdoors. • Consider implementing exposure controls. • Consider providing voluntary use respirators.
35.5-250.4 $\mu g/m^3$	101-300	101-350	All of the above and: • Implement exposure controls. • Make N95 respirators available for voluntary use.
250.5-500.3 $\mu g/m^3$	301-499	351-848	All of the above and: • Ensure workers experiencing symptoms requiring immediate medical attention be moved to a location that ensures sufficient clean air. • Directly distribute N95 respirators to employees for voluntary use.
500.4-554.9 $\mu g/m^3$	500-beyond the AQI	849-956	All of the above and: • Implement a complete required use respiratory protection program, including fit-testing, medical evaluations, requiring employees to be clean-shaven, and requiring the use of particulate respirators.

555 μg/m^3 or more	Beyond the AQI	957 or more	All of the above and: • Require respirators with an assigned protection factor (APF) of 25 or more. N95 Respirators are not sufficient at this level of smoke.

Wildfire Smoke Hazard Communication for Our Employees

We will communicate wildfire smoke hazards to our employees when the air quality is at or above 20.5 μg/m^3 of $PM_{2.5}$ (AQI 69, or AQI 72 after May 6, 2024). Additionally, we encourage our employees to monitor the air quality where they are working and to notify their supervisor when the air quality is above 20.5 μg/m^3 (AQI 69 or AQI 72 after May 6. 2024).

We will inform our employees of the following via cell phone:

- When at least two consecutive current $PM_{2.5}$ readings are 20.5 μg/m^3 (AQI 69, or AQI 72 after May 6, 2024) or more.
- When the current $PM_{2.5}$ reaches 35.5, 250.5, 500.4, and/or 555 μg/m^3 or more.
- What available protective measures are available to employees to reduce their wildfire smoke exposures at each level.

We will not punish employees who show signs of injury or illness that may potentially be due to wildfire smoke exposure for reporting those symptoms, seeking medical attention, or following medical advice they have been given.

When air quality is of concern, we will let employees know via cell phone and encourage them to let us know immediately should they have additional concerns or symptoms. They will report to their supervisor if they have concerns or symptoms, in person or via cell phone. They will also use the buddy system.

Employee and Supervisor Training

We train all covered workers and supervisors with wildfire smoke training. Supervisors will complete additional training. We will train them using handouts, online videos and any additional materials available.

Responding to Wildfire Smoke Exposure Symptoms

We require our employees let us know if they are have symptoms of wildfire smoke exposure. This is so we can monitor these employees to determine whether medical attention is necessary.

Our employees may seek medical attention or follow medical advice they have been given for symptoms potentially related to wildfire smoke exposure. We will not retaliate against those employees for seeking medical attention or following medical advice they have been given.

Exposure Symptom response:

- Employees displaying adverse symptoms will be monitored to determine if medical attention is necessary.
- Medical treatment will be required if determined illness due to wildfire smoke.
- Employees and Site Supervisors will call EMT if serious injury or Illness caused by wildfire smoke exposure.

Where the current $PM_{2.5}$ is 250.5 µg/m^3 (AQI 301, or AQI 351 after May 6, 2024) or more, we will ensure workers experiencing adverse symptoms requiring medical attention be moved to a location that ensures sufficient clean air. We will move these workers to:

Exposure controls:

- Employees will be relocated to areas that have a lower ambient air concentration of PM 2.5.
- Work intensity will be reduced.
- N95's will be used while working outdoors.
- Additional resting periods will be provided including but not limited to the following:
- Providing portable HEPA filters in enclosed areas
- Providing enclosed buildings, structures, or vehicles where the air is adequately filtered.

Employees exhibiting wildfire smoke exposure symptoms will be monitored by the Supervisor.

Controlling Employee Exposures to Wildfire Smoke

We care about the health of our employees and will implement these methods to protect

When the current $PM_{2.5}$ is 35.5 µg/m^3 (AQI 101, or AQI 101 after May 6, 2024) or more, we will not have them come in to work, or we will send them home immediately should we get a report of that level.

FORKLIFT SAFETY

The company utilizes forklifts as a significant component of our operations. For us to remain safe, the following procedures shall be followed.

REQUIREMENTS

1) Only trained and authorized drivers are permitted to use forklifts.
2) Any employee who operates a forklift shall be properly trained. The training shall include a written examination and practical driving test. Each candidate shall be able to demonstrate their knowledge of the forklift, its controls, and attachments, ability to determine load weights, load centers and the forklift stability triangle.
3) Forklift safety rules are to be posted at or near places of operation. The job trailer bulletin board can be used for this purpose.
4) Each forklift is to be inspected and results documented prior to the initial use for the shift. If multiple shifts are being conducted then one inspection per shift is needed. Inspection sheets need to be turned in daily to the Superintendent or Project Manager. Project supervision will ensure copies are directed to the Equipment department.
5) All forklift safety devices, such as seat belts, are to be used at all times while operating the equipment.
6) Fire extinguishers are to be placed on each forklift.
7) Forklifts are to be driven at safe speeds defined by the conditions and specified by manufacturer. Using the forklift at unsafe speeds is grounds for revocation of driving status or other disciplinary measures.
8) If a forklift is involved in an incident, a review will take place to determine corrective measures including re-training, disciplinary measures or other actions.
9) Before hoisting personnel always check the laws or legislation that pertains to each area.
10) Hoisting of personnel with forklifts is to be conducted with a properly constructed personnel cage positively attached. While in the cage, personnel are to use a personal fall arrest system.
11) The forklift driver is not to leave the controls while personnel are in the personnel cage.
12) If other attachments are used, only drivers trained to use them will be permitted to do so.
13) Training records will be maintained in the Project and or District Safety files
14) Training shall occur prior to employee operation of and company forklift, and at least every three years thereafter unless observed performance by the operator dictates the need for more frequent retraining.
15) Employees must pass a written and practical test demonstrating their knowledge and Performance on a forklift. Each trainee, who satisfactorily completes the qualifications, shall be issued a written document as evidence of being a Qualified Forklift Operator.

Inspection and Maintenance

1) Prior to placing a forklift truck into service, the truck operator shall inspect their vehicle and document this inspection on a inspection Form. This inspection is not necessary on days when the forklift will not be placed into service.
2) Any noted condition that affects the safe operation of the forklift shall be reported to the operator's supervisor for corrective action and shall keep the forklift from being operated until the unsafe condition is corrected.
3) Forklifts that are defective, in need of repair or are unsafe shall be tagged "Danger Do Not Operate" and taken out of service until restored to safe operating condition.
4) A maintenance log shall be maintained for each forklift to determine when required maintenance is due. Only qualified personnel shall perform maintenance and repair. Maintenance records for each forklift shall be kept on file by the assigned department manager.

General Safe Operating Rules

1) Any employee that operates a forklift in an unsafe manor will be subjected to being retrained and/or disciplinary action.
2) Operators shall strictly adhere to the lifts operating manual and site specific rules.

Refueling and Battery Changing/Charging

1) Refueling and battery charging operations shall be performed only in designated areas. Open flames, smoking, sparks or electric arcs shall be eliminated while changing/charging areas.
2) Forklifts shall be shut-off, properly positioned and brakes applied before attempting to refuel or change/charge battery. Proper PPE including eye and face protection and gloves will be worn when handling cylinders and/or batteries.

HAND & POWER TOOL SAFETY

POLICY

This policy has been established to eliminate, reduce, or avoid hazards associated with the use of hand and power tools. Hazardous exposures may include but are not limited to objects or materials that are falling, flying, splashing or abrasive in nature, as well as harmful dust, fumes, mists, vapors or gases. The required PPE shall be worn at all times. Depending on the tool selection additional PPE such as hearing protection, goggles, and face shield may be required. Any violation of appropriate PPE requirements or other procedures outlined in this policy will result in disciplinary action up to and including termination of employment.

REQUIRMENTS

All hazards involved in the use of power tools can be prevented or minimized by following basic safety rules:

1) All hand and power tools shall only be used for the purpose for which they are intended. Any employee who operates hand and power tools shall be trained to the tools operated to manufacture specifications. All tools shall be inspected before use and maintained in safe working condition by performing regular maintenance.
2) All guards and safety devices shall be in place and properly functioning as intended.
3) Tools shall not be carried or hoisted by their electric cords or hoses or yanked from receptacles. Cords and hoses shall be kept away from heat, oil or sharp edges.
4) Powder actuated tools, chain saws shall only be used by trained and qualified operators.
5) Powder actuated tools shall be maintained only by qualified and authorized personnel.
6) Pneumatic impact tools will be equipped with safety clips or retainers to prevent tools from being expelled from the barrel.
7) Before servicing, when changing accessories such as blades, bits and cutters, and when not in use disconnect all tools from their power source.
8) All observers should be kept at a safe distance away from the work area.
9) Work areas shall be properly illuminated.
10) When electrical tools are connected to a temporary power source, personnel shall be protected by Ground Fault Circuit Interrupters (GFCI'S).
11) GFCI receptacles shall be used and assured grounding tests shall be up to date.
12) Good housekeeping must be maintained when working with or around tools to prevent slips, trips or falls that could result in incidental contact with tools of any kind.
13) Inspect material surfaces for potential fracturing, deflection or material ricochet; wear appropriate PPE as identified on the JHA or risk assessment.
14) All portable electric tools that are damaged shall be immediately removed from service and tagged “Do Not Use.” Portable electric tools should have the malfunction or hazard identified on the reverse side of the “Do Not Use” tag.

Responsibility

Both supervisory and craft personnel shall be responsible for implementing the safe work practices outlined by this policy. Violation of this policy shall result in disciplinary action up to and including termination of employment. If a hazardous situation is encountered, it should be immediately brought to the attention of the appropriate supervisor.

Hand Tools

Hand tools are non-powered tools including but not limited to: axes, chisels, hammers, and wrenches. Hazardous risk exposure to employees increases when tools are misused or improperly maintained.

1) Supervisors shall be responsible for providing and monitoring the safe condition of hand tools and equipment used by employees and employees shall be responsible for inspecting, properly using and maintaining tools in a safe and operable condition. The appropriate supervisor shall be notified if repairs or replacements are needed.
2) Caution should be taken when using saws, knives, or other “sharp tools” by directing their use away from the user, other employees, walkways, or work areas in close proximity.
3) Spark resistant tools made from brass, plastic, aluminum, or wood shall be provided rather than iron or steel hand tools which can act as an ignition source around flammable substance.
4) Do not alter hand tools!
5) Inspect all hand tools before use. Tools in poor condition create safety hazards.

Power Tools Guards

Safety guards on power tools protect the user from hazardous moving parts such as belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment.

1) Guards shall be provided to protect the operator and others from rotating parts, blades, flying chips, sparks and other potential hazards.
2) Safety guards shall never be removed when using a power tool.

Safety Switches

1) Drills, tappers, fastener drivers, horizontal or vertical angle grinders with wheels larger than 2 inches in diameter, disc and belt sanders, reciprocating saws, saber saws, and other similar tools shall be equipped with a momentary contact “on-off” switch, or be equipped with a lock-on control that can be turned off by a single motion of the same finger or fingers used to turn the unit on.
2) Hand held power tools such as platen sanders, disc sanders with discs 2 inches or less in diameter; grinders with wheels 2 inches or less in diameter; routers, planers, laminate trimmers, nibblers, shears, scroll saws and jigsaws with blade shanks ¼ -inch wide or less shall be equipped with a positive “on - off” control switch.
3) Hand-held power tools such as drills, circular saws having a blade diameter greater than 2 inches, chain saws, and percussion tools without positive

accessory holding means shall be equipped with a constant pressure switch that will shut off the power when pressure is released.

Circular Saw

1) Free cutting is the practice of sawing material while supporting it with one's body (foot, leg, and hand). Materials must be supported by a sawhorse, table or other wooden surface whenever sawing. In situations where a supporting surface is impractical and the material is hand held, and body parts must be at least 12 inches from the saw blade.
2) Both hands must be on the saw when making plunge cuts. Do not "walk" the saw into the cut. When lowering the rotating saw blade into the cut, the front sole of the saw must be in contact with the wood. Securing the material from movement is required.
3) The proper cutting tool and correct method are required when cutting small pieces. Small wedges shall be precut. JHA forms need to cover procedures for the precutting and availability of wedges anytime extensive wedge use is part of the forming operation.

Safety Procedures

1) Inspect saw, ensure guard is functional and freely moves.
2) Adjust guard for depth of cut.
3) Ensure blade is facing the right direction.
4) Adjust angle of the cut.
5) Lock all adjusting handles.
6) Check for cracks including guard, handle, and casing.
7) Check saw for proper lubrication.
8) Use only sharp blades.
9) Check cord for damage.
10) Item being cut must be secure, self-supporting & not resting on body part.
11) Cutting Surface must NOT inhibit movement of the blade.
12) Plunge cuts must be made with both hands on the saw.
13) Ensure tool is correct size for the material being cut.
14) After the cut is completed, ensure the blade is allowed to stop before commencing another cut as required by the manufacturer. When momentarily stopping between cuts, ensure the still rotating blade is placed away from the body.

Changing the Blade

1) Unplug the tool.
2) Press the button on the back of the saw to lock the blade for removal.
3) Use wrench "spanner" to loosen nut at center of blade to remove.
4) Remove the blade.
5) Clean saw with blade removed.
6) Look for hidden damage.
7) Install new blade with teeth facing up at the cutting end of the saw.
8) Hold down pin to lock blade.
9) Understand all functions of the tool prior to use.

Nail Gun Safety

1) Always read and understand the manufacturer's manual. Ensure each nail gun is maintained in accordance with the manufacturer’s specifications.
2) Keep extremities away from the tip of the gun
3) Watch out for other crew members working near you.
4) Do not exceed the manufacturer’s limits for air pressure nor exceed 120 psi.
5) All pneumatically driven nail guns and similar equipment with automatic fasteners feeds, which operate at more than 100 psi at the tool, shall have a safety device on the muzzle to prevent the tool from ejecting fasteners, unless the muzzle is in contact with the work surface.
6) All employees shall be trained prior to use, and inexperienced crew members shall only use a nail gun with direct supervision.
7) Never use a compresses gas cylinder as a power source for pneumatic tools.
8) Inspect the air hose prior to each use.
9) Disconnect a nail gun before servicing it.
10) Never use a nail gun with the nose guard safety spring missing.
11) Disconnect the nail gun from the power source (electrical or air) when carrying out of the work area.
12) When you are moving about the work area - keep your finger off the trigger until you are ready to fire. Make sure you have only placed the nose guard against the material you are going to nail together.
13) Never rest the gun against any part of your body, or try to climb a ladder with the gun cradled against your body.

Electric Tools

1) The most serious injury associated with electric tool use is electrocution. Primary hazards such as burns and shocks can result in serious injury, heart failure or death. Even a small amount of current can result in fibrillation of the heart or cause the user to fall from a ladder or elevated work surface.
2) To protect the user from shock, tools shall have:
3) Three-wire cords contain two, current carrying conductors and a grounding conductor. One end of the grounding conductor connects to the tool’s metal housing. The other end is grounded through a prong on the plug. Anytime an adapter is used to accommodate a two-hole receptacle, the adapter wire must be attached to a known ground. The third prong should never be removed from the plug.
4) Double insulation protects the user and tools through normal insulation on the wires inside, and by a housing that cannot conduct electricity to the operator in the event of a malfunction.

Powered Abrasive Wheel Tools

Flying fragments is a potential hazard that exists when using powered abrasive grinding, cutting, polishing, and wire buffing wheels. The following requirements shall be followed when using abrasive wheel tools:

1) Before an abrasive wheel is mounted, it shall be closely inspected and sound or ring-tested to ensure it is free from cracks or defects

2) To prevent the wheel from cracking, the user shall verify that it fits freely on the spindle.
3) The spindle shall be tightened enough to hold the wheel in place, without distorting the flange.
4) The spindle wheel shall not exceed the abrasive wheel specifications.
5) The employee shall never stand directly in front of an accelerating wheel.
6) Portable grinding tools shall be equipped with safety guards.
7) Safety glasses and full-face shields shall be worn 100% of the time.
8) The power shall be turned off when not in use.
9) Hand-held grinders shall never be held in a vise.
10) Handles must be in place.
11) Never grind in the vicinity of flammable substances

HEAT RELATED ILLNESS

Purpose: To prevent heat-related illnesses and injuries for outdoor work. Also to ensure compliance with the Outdoor Heat Exposure Rule requirements (WAC 296-62-095 through WAC 296-62-09560, General Occupational Health Standards – Outdoor Heat Exposure, and WAC 296-307-097 through WAC 296-307-09760, Agriculture Safety Standards – Outdoor Heat Exposure).

Groveland Construction takes the danger of heat seriously. We have implemented this plan to protect our employees from heat-related illnesses and injuries. Everyone onsite has a shared responsibility to keep people safe and healthy. This includes watching out for yourself and others because heat-related illness can happen quickly and become a life-threatening condition if unnoticed or ignored. Speak up if you notice anything that could be unsafe or result in someone getting hurt or sick.

Covered Workers

This plan covers anyone working outdoors more than 15 minutes in any 60-minute period when temperatures are:

- As low as 52°F and up if you are wearing non-breathable clothing or clothing that provides a vapor barrier like rain gear or chemical-resistant suits.
- At or higher than 80°F when you wear any other type of clothing.

Some people are more susceptible to heat sickness than others. This includes anyone:

- Who comes to work dehydrated,
- Becomes dehydrated during work,
- Taking medication(s) like anti-histamines, medications for high blood pressure,
- Has certain preexisting medical conditions like high blood pressure or
- Who isn't acclimatized or used to the heat.
- Heat waves can make everyone more susceptible to heat-related illness, even young and healthy workers.

Our plan covers you if you do any of the following jobs or tasks at our worksites:

Job: Masonry

Job: Forklift Driving

1. **Shade or Alternatives**

   The purpose of shade is to cool your body down. Shade helps prevent heat illnesses. Anything that defeats the purpose of shade or that discourages you from using it is **not** acceptable and must be reported to and addressed by the Supervisor.

We will provide enough shade to fully cover everyone taking a break at the same time with room enough to sit comfortably. Use this shade whenever you need to cool down so you do not overheat and during any required, cool-down rest period.

For our work sites, we will ensure you have ready access to shade, or some other cooling alternative, at all times. Here is what you can expect at our jobsites:

- Access to shade inside buildings
- Additional canopies should shade not be sufficient

The Supervisor is responsible to ensure shade (or an acceptable alternative) is provided at the job site. That person will:

- Assess the need for shade at the jobsite based on the size of the crew, the available means for shade or other cooling methods, the proximity to work areas, and other factors that affect the provision of shade or alternatives.
- Ensure shade or other alternatives are set up properly.
- Encourage you to use shade to prevent heat illness or to recover you start to feel sick.

2. Hydration

Drink water before work so you start your day hydrated.

We will ensure you have access to a sufficient quantity of drinking water which is readily accessible at their work location.

Don’t wait to be thirsty to drink. Drink small amounts often throughout the day to stay hydrated.

Drink at least 1 cup every 15-20 minutes.

Sport drinks low in sugar are okay. Avoid drinks with caffeine and high sugar content like sodas because they won’t hydrate you.

The Supervisor is responsible to ensure enough suitably cool water to allow you to drink at least a quart each hour. As the temperature increases through the day, additional water will be made available or replaced.

3. Adjusting to Heat (Acclimatization)

4.

It can take 7-14 days to get used to working in hot conditions. Getting used to hot weather is also called acclimatization. Acclimatization is lost if you are away from hot conditions for a week or more.

The Supervisor will ensure you and other acclimatizing workers are closely observed for signs and symptoms of heat illness over a 14 day period. They will ensure observation and communication is provided as follows:

- Use the buddy system, with an assigned 'buddy' who will personally check in with you at least every hour to determine if you may be experiencing signs or symptoms of heat illness
- Ensure you use cell phone communication to check in every hour as long as reception is dependable

In addition to newly assigned workers, workers who have been away from the heat for a week or more, and crews working during a heat wave should also follow our acclimatization practices detailed above.

5. Preventative Cool-down Rest Periods

When covered by this program you are encouraged to take a preventative cool-down rest period anytime you feel the need to do so to prevent overheating.

The Supervisor is responsible to ensure everyone is being observed for signs and symptoms of heat illness by using a buddy system where everyone will be assigned a buddy to keep a close eye on each other and take action to prevent or respond to signs or symptoms of heat illness.

All cool-down rest periods are paid time unless taken during a meal period.

Any worker who starts to experience heat illness must be relieved of duty, allowed to safely cool down, and be closely monitored to verify they are okay or need prompt medical attention.

Never leave someone experiencing heat illness alone.

They could get worse, and even die!

6. High Heat Procedures

When the temperature reaches 90°F, every worker is required to take at least a 10-minute cool down rest period in the shade every 2 hours. When the temperature reaches 100°F, every worker is required to take at least a 15-minute cool-down rest period in the shade hourly. All cool-down rest periods are paid time unless taken during a meal period.

Rest Period Requirements for High Heat	
Air Temperature	**Mandatory cool-down rest periods**
At or above 90°F	10 minutes every 2 hours
At or above 100°F	15 minutes every 1 hour

The Supervisor is responsible for keeping track of the temperature and notifying workers of their break schedule.

6. Training

Each year, we will provide our employees with heat safety training. The training will include the dangers of outdoor heat exposure, our measures to protect employees, and actions you and supervisors must follow to prevent heat-related illness.

Additional training will be scheduled and provided for new hires and anyone who needs a refresher.

Training will be done by supervisors and/or the president. Training will utilize handouts, online videos and any other training resources available via lne.wa.gov/HeatSmart

Workers need to be aware that:

- Heat can make them sick, and how to recognize the common signs and symptoms of heat-related illness in themselves and coworkers.

- Environmental factors increase risk for heat-related illness such as higher temperatures, humidity, sunlight (working under direct sunlight makes it feel significantly hotter), additional sources of heat like powered equipment and asphalt, no wind, level of physical activity, work duration, and wearing of personal protective equipment (PPE) or layers of clothing.

- Personal factors that may increase susceptibility to heat-related illness including age, physical fitness, not being acclimatized, having medical conditions such as hormonal and heart issues and diabetes, previous heat-related illness, pregnancy, dehydration, and use of substances that can affect the body's response to heat like drugs, alcohol, and some medications.

- Removing heat-retaining PPE such as non-breathable chemical resistant clothing during all breaks is necessary to allow their body to cool down.

- Staying well hydrated by drinking small quantities of water or other acceptable beverages frequently throughout the day is a top priority to prevent heat illness.

- An acclimatization period of 14 days for workers newly assigned to work in the heat is highly important for their safety and why they may need to re-acclimatize if they spend a week or more away from the heat. The importance of gradually increasing work duration in the heat and that you are unable to build tolerance during a heat wave.

- Cool down rest periods are taken to prevent or recover from heat illness, they are mandatory when temperatures are 90°F or hotter, and are paid time unless taken during a meal period.

- The purpose of shade is to allow the body to cool down and anything that defeats that purpose or discourages or deters the use of shade is unacceptable. Workers also need to know the employers procedures for providing shade (or alternative ways to cool off) including locations and how to access.

- When the temperature reaches 90°F or hotter, everyone must be closely observed for signs and symptoms of heat illness. Training will include a description of how the employer will ensure observation and communication for crews and lone workers.

- Heat illness can progress quickly and how to immediately report signs or symptoms of heat-related illness they experience or observe in coworkers, and how to **immediately** respond to prevent the situation from becoming a medical emergency. They will also need know how to identify and what to do during a heat-related medical emergency (e.g., potential heat stroke).

We will train supervisors on the following (in addition to what is detailed for employees above):

- The procedures to follow to implement the heat-related illness prevention plan including the acclimatization schedule, how to keep track of environmental conditions throughout the day, when to increase the number of breaks or stop work early, to check that workers are accessing shade and water (especially for mobile operations), encourage them to stay hydrated, and communicate with lone workers to ensure they are safe.

- Type of shade or cooling method that will be provided for all employees and where it’s located. For example, when to provide alternative cooling methods like cooling vests and gel-filled bandanas or effective means.

- Close observation procedures for when an employee is acclimatizing to the heat and when the temperature is at or above 90° F.

- What the Supervisor needs to do if an employee shows signs and symptoms of possible heat-related illness including appropriate emergency response procedures including how to transport any affected employees to a medical service provider.

7. Responding to Heat-related Illness

Let a supervisor or someone nearby know if you or a co-worker is experiencing any signs or symptoms of heat-related illness, and take immediate action to ensure things don't get dangerously worse.

1. Time is critical. Acting quickly increases the chances for a full recovery. Get the worker away from the hot area and into the cool shaded area provided.

2. Let the worker rest and drink cool water.

3. Never leave an employee who is experiencing heat-related problems alone because things could get worse. (*For lone workers, you may want to specify the supervisor staying on the line to monitor their recovery and the need to contact emergency services.)*

4. If the employee does not respond quickly, call emergency medical services. Call 911 and transport the employee to the nearest urgent care if necessary. The nearest urgent care, along with directions, is included in the SSSP on site. Once 911 is called and the employee has appropriate care, call the president of Groveland to report. Fill out an accident report within 24 hours.

	Symptoms	Treatment
Heat Cramps	Muscle spasms in legs and abdomen	Move person to cooler location Stretch muscles to relieve cramps Give cool fluids to drink
Heat Exhaustion	Headache Dizziness Weakness/clumsiness Heavy sweating/clammy Irritability/confusion Nausea/vomiting	Call 911 Move person to cooler place Loosen and remove heavy clothing If conscious, provide small amount of water Apply cool compress or mist
Heat stroke	Sweating may or may not be present Red or flushed, hot, dry skin Bizarre behavior Mental confusion or losing consciousness Panting/rapid breathing Rapid, weak pulse Seizures	Call 911 Move person to cooler place; do not leave alone Cool worker rapidly Loosen and remove heavy clothing, including PPE Fan and spray with cool water to increase evaporative cooling

PERSONAL PROTECTIVE EQUIPMENT

POLICY

The purpose of this policy is to protect employees from exposure to work place hazards and the risk of injury through the use of personal protective equipment (PPE). It will be used in conjunction with other controls unless no other means of hazard control exist. PPE will be provided, used, and maintained when it has been determined that its use is required to ensure the safety and health of our employees and that such use will decrease the likelihood of occupational injury and/or illness.

RESPONSIBILITY

Safety Supervisor or Designated Person

The safety supervisor or designated person is responsible for the development, implementation, and administration of the PPE program.

This involves the following:

- Conducting workplace hazard assessments to determine the presence of hazards which necessitate the use of PPE.
- Maintaining records on hazard assessments.
- Providing training, guidance, and assistance to supervisors and employees on the proper use, care, and cleaning of approved PPE.
- Periodically re-evaluation of the suitability of previously selected PPE.

Reviewing, updating, and conducting PPE hazard assessments shall be done whenever the following situations should occur:

- A change in job scope.
- New equipment or manufacturer is used.
- A supervisor or employee requests it.

Supervisors, Foreman or Designated Person

The supervisors, foreman or designated persons have the primary responsibility for implementing and enforcing PPE use and policies in their work area.

This involves the following:

- Ensuring that employees properly use and maintain their PPE, and follow all PPE policies and procedures.
- Notifying the safety supervisor and designated person when new hazards are introduced or when processes are added or changed.
- Ensuring that defective or damaged PPE is immediately disposed of and replaced.

Employees

The employee is responsible for following the requirements of the PPE program. This involves the following:

- Properly wearing PPE as required.
- Attending required training sessions.

- Properly caring for and inspecting PPE as required.
- Following PPE policies and rules.
- Informing the supervisor of the need to repair or replace PPE.

PROCEDURE

Hazard Assessment

Company employees and supervisors will conduct a walk-through assessment of each work area to identify sources of work hazards. Each assessment will be documented using the company or client provided hazard assessment form. The hazard assessment form identifies the work area assessed, the person conducting the survey, findings of potential hazards, safeguards implemented, and date of the survey. All hazard assessments will be reviewed, discussed, and understood by all employees working at the jobsite.

PERSONAL PROTECTIVE EQUIPMENT

Selection and review of PPE requirements will be made whenever the following situations should occur:

- A change in job scope.
- New equipment or process is installed.
- Whenever a supervisor or employee requests it.

A safety representative or designated person will determine the PPE needed for the job. Care will be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of hazards will be recommended for use.

All PPE must be maintained in a sanitary and reliable condition and fitted to the employee. These conditions will be met in accordance with the OSHA, WISHA, ANSI, NIOSH and site-specific requirements. PPE will be provided by the company at no cost to the employee. It shall be used wherever it is necessary or directed by supervisor or a safety representative.

Affected employees whose jobs require the use of PPE will be informed of the PPE selection. Careful consideration will be given to the comfort and proper fit of PPE in order to ensure that the right size is selected.

GENERAL REQUIRMENTS

1) The contractor shall provide appropriate Personal Protective Equipment (PPE) to their employees with respect to the hazard that exist.
2) PPE must be in good condition, free of any defects or flaws, and shall be used or worn during the performance of all applicable activities.
3) Substantial boots with full leather uppers shall be worn on all construction sites. Protective steel toe footwear will be worn as required when hazards to the feet exist. Tennis shoes, open-toed shoes, sandals, and/or high heel shoes are prohibited.
4) Personnel must wear shirts with sleeves that go over the shoulders at least 4”. Tank top shirts are prohibited.

5) Personnel are not to wear loose fitting clothing or clothing that contains rips or tears that could possibly get caught on materials or equipment or cause tripping hazards.
6) Hard hats will be worn at all times on construction sites in the manner in which the manufacturer requires them to be worn. Therefore, hard hats will be worn with the bill facing towards the front and baseball caps will not be worn underneath them.
7) Personnel performing welding may wear the hard hats backwards with the bill facing towards the back when they need to wear a welding hood over top of them.
8) Personnel performing surveying may wear their hard hats backwards when it interferes with the instruments they are using.
9) Metal hard hats and bump caps are prohibited. Welders shall have welding hoods that attach to the hard hat to assure head protection while in the construction area.
10) Personnel performing welding work will need to erect and maintain welding blinds or screens to protect others in the vicinity from flash burn to the eyes.
11) Employees working on electrical systems will be required to wear all the appropriate protective equipment as required by the National Electrical Code.
12) A qualified First Aid Attendant with adequate medical supplies will be available on each shift.
13) Personal protective equipment such as, but not limited to, hard hats, safety glasses, safety shields, fire retardant clothing, goggles, respiratory protection, welding hoods, cutting goggles, and gloves will be worn at all times when required by safety codes and the type of work being performed.
14) Fire retardant clothing shall be worn to protect personnel while performing welding or cutting operations.
15) Employees must be physically able and medically qualified to use PPE.
16) Persons involved in activities that would subject the hands to injury shall use protective gloves suitable to protect the hands from the hazard.

TRAINING

Any worker required to wear PPE will require training in the proper use and care of PPE before being allowed to perform work requiring the use of PPE. Retraining of the employee is required in the following situations:

1) When the workplace changes.
2) Making the earlier training obsolete.
3) The type of PPE changes.
4) When the employee demonstrates lack of use, improper use, or insufficient skill or understanding.

The training will include, but is not necessarily limited to, the following subjects:

- When PPE is necessary.
- How to properly don, doff, adjust, and wear PPE.
- The limitations of the PPE.

- The proper care, maintenance, useful life, and disposal of the PPE. After the training, the employees will demonstrate that they understand how to use PPE properly, or they will be retrained.

EMPLOYEE-OWNED PPE

The company does allow (with employer permission) certain employee-owned PPE i.e. work boots, some types of safety glasses and gloves. It is the employers' responsibility to inspect and ensure that all PPE, employee and employer provided, meet the standard as required by the company, client, and regulatory agencies.

CLEANING & MAINTENANCE

It is required that all PPE, both employee and employer provided, be kept clean, properly maintained, and in reliable condition. Supervisors are responsible for ensuring that users properly maintain their PPE in good condition. PPE must not be shared between employees until it has been properly cleaned and sanitized by trained personnel. PPE will be distributed for individual use whenever possible. Defective or damaged PPE will not be used and will be immediately discarded or repaired. It is also important to ensure that contaminated PPE which cannot be decontaminated is disposed of in a manner that protects employees and other personnel from exposure to hazards.

AUDITS

The safety department or a designated person is responsible for ensuring, through an auditing process, that all employees are in compliance with this policy. This includes employee-owned personal protective equipment. All levels of equipment shall be assured to be adequate, effectively maintained and sanitary.

EYE AND FACE PROTECTION

The company shall provide protective eye and face equipment, where there is a reasonable probability of injury that can be prevented by such equipment. In such cases, the safety department shall make conveniently available the type of protective equipment suitable for the work being performed, and the employee shall use such equipment.

Employees will follow these standards for eye and face protection:

- Wear ANSI Z87.1 safety glasses with side shields where required.
- During dark or hazy days and at night, non-tinted safety glasses with side shields shall be worn.
- Wear a face shield while sanding, cutting, & grinding or performing any other task that involves chemicals or flying particles.

In addition, the following eye/face protective equipment must be used when performing the following work activities:

In addition, the following eye/face protective equipment must be used when performing the following work activities:

Activity	Safety Equipment
Abrasive grinding or cutting	Safety glasses with side shields
Drilling	Safety glasses with side shields
Chemical Handling	Goggles and Face Shield
Molten Materials	Goggles and Face Shield
Corrosive Liquids	Goggles and Face Shield
Concrete Pouring	Safety glasses with side shields

FOOT & HAND WEAR

Footwear Sole: The sole must be constructed of oil resistant, non-slip material and shall be capable of providing a substantial amount of puncture resistance.

Upper: The upper must be constructed of leather or equivalent material which resists liquid penetration and absorption while providing puncture, impact and thermal protection.

Cloth type (fabric) footwear and sandals are not acceptable. There shall be no vent holes below oxford height, which could allow passage of liquid to the foot. The foot wear shall have adequate ankle support.

Exceptions With the exception of sandals and open toe shoes, footwear that does not meet the requirement as stated above is permitted under the following circumstances:

- Traveling to/from work stations at shift changes and break periods.
- Working in office areas.
- Delivery personnel or other visitors not entering process areas or construction sites.
- For temporary medical reasons, when approved.

Steel toe safety footwear is highly recommended, but is not required. Unless required by a client or customer.

ELEVATED WORK PLATFORMS

Purpose

The purpose of this policy is to outline the usage requirements related to aerial lifts and other types of elevated work platforms.

Training

Only employees authorized by the supervisor who have been adequately trained may work/operate in aerial lifts. Training shall be performed by a qualified instructor and shall be inclusive of all safe operation recommendations specified by the manufacturer, company policies, and procedures. MEWP training shall be properly performed documented, and records retained.

Operation

1) Modification to an aerial lift in any manner is strictly prohibited, except by written authorization from the manufacturer.
2) An aerial lift shall NOT be used as a crane.
3) Materials shall stay inside the basket and do not exceed the load limits.
4) Each piece of equipment shall be inspected prior to the start of shift to ensure proper operation.
5) Lifts shall be operated in a manner that eliminates unintended movement.

    Areas of concern include:

    a) Weight capacity
    b) Feet on the floor
    c) Slope restrictions
    d) Outrigger use
    e) Wheel blocking or locking devices
    f) Operational load limit
    g) Other specific manufacturer recommendations
6) Unless specifically designed for and allowed by the manufacturer, lifts shall not be moved while elevated when employees are on the platform or in the bucket.
7) The travel path shall be cleared of all debris and shall be free of surface defects.
8) It is mandatory that all persons working in an aerial lift shall wear a full body harness and lanyard. The lanyard shall be attached to the designated anchor point on, or in, the aerial lift.
9) Tie off to any point outside the lift is prohibited!
10) Refer to the operator’s manual for equipment limitations when working in inclement weather for limitations of the unit.
11) When working near overhead powerlines know the voltage and follow the chart below.

Voltage (nominal, kV, alternating current)	Minimum clearance distance (feet)
up to 50	10
over 50 to 200	15
over 200 to 350	20
over 350 to 500	25
over 500 to 750	35
over 750 to 1000	45
over 1000	(as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution).

12) Personnel shall be trained in the safe handling of scissor lifts prior to their use.
13) Training shall consist of control use, unauthorized use on slope areas, access
14) and egress from the work platform, battery recharging, inspection, use near overhead power lines, use on unstable footing and fall protection.
15) A visual inspection shall be performed before operating the lift. This will include inspection of tires, controls, safety rails and chains, hydraulic fluid, battery, hazard signals and proper motion of the lift.
16) Authorization will only be provided to those employees who have been trained.
17) Material shall not extend beyond the handrail or platform confines when moving.
18) Materials shall be secured to prevent displacement and contact with controls and operator.
19) Personnel shall not climb the lift while erected.
20) Personnel shall not climb or sit on the top handrails of the lift.
21) Fall protection will not be required as long as personnel remain flat-footed on the work platform for scissor lifts but is always required for all articulating lifts.
22) Center-rail drop chains or swing gates will be installed when workers have accessed the platforms and before travel or vertical climb is accomplished.
23) Employees shall not travel over top of electrical cords with the lift.
24) Operators must visually watch the surrounding areas to assure that contact with structures, other equipment or personnel does not occur.
25) Scissor lifts must not be driven over floor covers unless it has been determined to withstand the weight.
26) Employees shall discontinue the use of a scissor lift and contact their supervisor immediately when problems with the lift are observed.
27) Employee retraining shall be provided when deemed necessary.
28) Personnel shall not work within 10 feet of overhead power lines.
29) Employees shall not use lifts on ramps unless the manufacturers' recommendations and direction are being properly followed.

30) Manufactures specifications shall be understood and used by operators at all times.

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

- Operators 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 – Reference OSHA's table A.
- 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
    - If MWEP are used to access another point, 100% tie-off shall be utilized before proper transition is performed
- 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

FALL PROTECTION

PURPOSE

The company is committed to eliminating all fall hazards and related injuries. Use of 100% fall protection is required whenever the potential exists for an employee to fall from a height of four feet (4) or greater per Chapter 296-880 WAC the unified Fall Code.

All personnel working or walking four feet or more above a lower level shall be protected by:

A guardrail system, Personal Fall Arrest System (PFAS) that includes a full body harness, and a shock absorbent lanyard, with an adequate anchor point, a safety net, or other equivalent safety devices.

Responsibility / Disciplinary Action

The company is responsible for the health and safety of all employees, visitors and other individuals present on project sites. All such persons shall comply with local, state and federal regulations and company policies and procedures. Each supervisor is responsible for implementing this policy and ensuring that workers are in compliance. The appropriate supervisor(s) shall be immediately notified of any fall protection policy violations.

The company maintains a zero tolerance for safety violations related to fall protection. Any violation will result in termination. It is the responsibility of the project management and supervision, with assistance from the project safety representatives, to ensure that potential fall hazards are eliminated.

Training Requirements

Before an employee uses fall protection, training shall be provided to employee with information on how to recognize and control fall hazards. Employee training shall be updated as new methods, brands or protective devices are incorporated.

Training points shall include:

1) The nature of fall hazards in the work area and requirements for 100% fall protection compliance on a Fall Protection Work Plan document.
2) Procedures for erecting, maintaining, disassembling and inspecting systems
3) Use and operation of guardrails, PFAS, nets, safety monitoring and controlled access zones.
4) Procedures for removal and replacement of defective or damaged devices
5) Suspension trauma hazards, post-fall rescue procedures and self-rescue techniques.

Written Training Record

Written documentation of fall protection training shall include:

1) The name and signature of the employee(s) receiving training
2) The date of the training
3) Signature of the qualified person conducting the training

Qualified Person Trainer

A qualified person shall train all exposed employees and a written record shall be maintained. If new fall protection systems or hazards are introduced at the jobsite, or the employee is not using the system properly, then the employer shall retrain the employee.

GENERAL REQUIRMENTS

1) A site-specific written fall protection plan is required for all employees who will be working at the trigger heights, 4, 6 and 10 feet. Plans shall be updated to reflect site operations and shall be signed by each applicable employee before performing any work.
2) A working surface, with a minimum horizontal dimension of 45 inches in any direction, that exposes an employee to a fall of 6 feet or greater, must be protected by a standard guardrail system, safety net system, personal fall arrest system, or substantial floor opening cover.
3) Anytime the work requires an employee to be exposed outside the parameters of a standard guardrail or standard guardrail system, the following must be implemented:
    a) Lifelines, safety harnesses and shock-absorbing lanyards shall be used only for employee safeguarding.
    b) Any lifeline, safety harness or shock-absorbing lanyard that is actually subjected to an in-service loading shall be immediately taken out of service and destroyed.
    c) Lifelines shall be secured above the point of operation to an anchorage point or structural member capable of supporting without failure a minimum weight of 5000 pounds.
    d) Only shock absorbing lanyards with a length of 3’ shall be used with vertical lifelines and rope grabs.
    e) Lifelines subject to abrasion or cutting shall be a minimum of 7/8 inch wire core manila rope.
    f) Where abrasion or cutting is not a consideration, ¾ inch manila or equivalent, with a minimum breaking strength of 5000 pounds shall be used.
    g) Safety Harness shock-absorbing lanyards shall be a minimum of ½ inch nylon, or equivalent, with a maximum length to provide for a fall of no greater than 6 feet.
    h) The shock-absorbing lanyard shall have a nominal breaking strength of 5400 pounds and be Leading-Edge rated / design for use near leading edges.
4) Each contractor shall assure that their employees have been provided with fall protection training as it relates to the associated hazards and equipment intended to be used prior to the work taking place.
5) Wooden or cable guardrails, fall protection connection apparatus, full body harnesses, retractable lifelines, positioning belts with hooks, deceleration lanyards, floor opening covers, or other methods will be provided, implemented or installed to provide fall protection where necessary.

6) Safety nets can be used when practical as long as they are erected and tested in accordance with the 29 CFR 1926.500 Subpart M requirements.
7) Anchorage points shall be capable of supporting an imposed load of 5,000 pounds.
8) Horizontal lifelines shall not be used for fall protection but will be authorized for attachment use to keep personnel back away from where the fall hazard exists for fall prevention as opposed to fall protection purposes.
9) Horizontal or static lines can only be used if they are an engineered and approved system by the fall protection manufacturer and only if they are installed in accordance with the manufacturer's guidelines.
10) Only engineered fall protection systems will be authorized for use.
11) If other means of fall protection cannot be provided, work on flat roof and those with a pitch of less than 4:12 can be performed within the confines of a Controlled Access Zone (CAZ) that will encompass the intended access path and work area.
12) The CAZ will be established using stanchions and rope line with high visibility flagging placed at a minimum of 6' in from the roof edge. This will be the established barrier for personnel to work within.
13) No materials are to be stored within the area that is 6' from the building edge.
14) Personnel are not to work for any amount of time in the area 6' from the edge unless they use a personal fall arrest system. In addition, a supervisor who is deemed the competent person shall monitor the overall roof work to assure that it is being safely performed.

Full Body Harness

Full body harnesses are the only acceptable forms of personal fall arrest systems. Always attach the lanyard to the D-ring on the harness, located between your shoulder blades. Improper attachment to harness D-rings may result in serious injury. All other D-rings are intended only for working adjacent to vertical surfaces, positioning or retrieval, and are prohibited as fall arrest protective equipment.

Shock Absorbing Lanyards

Shock absorbing lanyards are the only acceptable lanyard type. They may be constructed from nylon webbing, rope or steel cable as long as a stitched or block type energy-absorbing (deceleration) device is incorporated. Double locking snaps are required to prevent "roll-out" of line from snap. Different length (1-6 foot) adjustable lanyards are available from the manufacturer. Knotting or tying of lanyards is not permitted. If connection is the fall protection method chosen, double lanyards shall be utilized to facilitate 100% connection.

Lanyards shall be utilized to limit a free fall to less than four (4) feet. A lanyard shall never be wrapped around an object, such as a pipe or beam, and then back to the lanyard to connection unless it is specifically designed to do so.

Personal fall arrest systems used in hoisting areas or where fall restraint methods have been implemented allow movement of employees up to the leading edge of walking/working surfaces, but restrict the possibility of falling to a lower level. Never attach a lanyard snap-hook to another snap-hook. Never attach a shock-absorbing

lanyard to a self-retracting lifeline (SRL) as the shock-absorbing feature may disengage the clutching action of the SRL.

Use manufacturer's recommended connector ring (carabiner) made of dropped-forged pressed form steel or equivalent material capable of supporting 5,000 pounds with a minimum tensile strength of 5,000 pounds. Steel cable lanyards with shock absorbers are manufactured for use around cutting, welding or other flame producing operations.

Self-Retracting Lifelines

SRLs are intended for vertical work as in climbing up and down. A swing fall can produce nearly the same energy as a vertical fall through the same distance. Therefore, it is critical that employees not move a distance of more than five feet horizontally from directly under the anchorage point (regardless of the manufacturer’s allowed angle of operation for the retraction mechanism). If greater horizontal movement is required, then a horizontal lifeline shall be used.

Horizontal Lifelines

Lifelines shall be anchored such that each anchorage point will withstand the simultaneous fall impact of 5000 pounds per employee attached or if engineer designed as part of a complete fall arrest system which maintains a safety factor of at least two.

Guardrail Systems

1) Guardrail systems perimeter guarding or hole covering is required anywhere a drop exists on a floor or a deck of four feet (4) or more. If cable guardrail is used, connection to the cable is prohibited, unless it meets requirements of the horizontal lifeline specification.
2) Guardrails shall be constructed of wood, or from a cable system. Guardrail systems shall be free of surface projections such as nails or nail heads to protect workers from punctures or lacerations and to prevent clothing from snagging.
3) The top edge height of top rails or (equivalent) guardrails shall be 42 inches above the walking/working level.
4) The guardrail system shall be capable of withstanding a force of at least 200 pounds applied within 2 inches of the top edge in any outward or downward direction. When the 200-pound test is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 42 inches above the walking/working level.
5) Mid rails shall be installed at 19.5” – 22.5” inches.
6) Mid rails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding a force of at least 150 pounds applied in any downward or outward direction at any point along the mid-rail or other member.
7) When screens and mesh are used, they shall extend from the top rail to the walking/working surface, and along the entire opening between top rail supports.
8) If intermediate members, such as balusters are used in lieu of midribs they shall not be more than 19 inches apart.
9) Post spacing is required to withstand a 200-pound lateral load with less than a three inches deflection result.

10) Wire rope used for top rails shall be flagged every six feet with high visibility material.
11) Toe boards are required where tools, equipment, or materials are piled higher than the top edge of a toe board, paneling or screening shall be erected from the walking/working surface or toe board to the top of a guardrail system's top rail or midtrial for a distance sufficient to protect employees below.

Warning Line System

1) Warning Line Systems shall be erected around all sides of open deck operations not less than 6 feet from edge for roofing personnel and 15 feet for non-essential roofing personnel. Systems consist of ropes, wires, or chains, and supporting stanchions and are set up as follows:
2) Flagged at not more than six (6) foot (1.8 meter) intervals with high visibility material. Stanchions must be eight (8) feet on center apart.
3) Rigged and supported so that the lowest point (including sag) is no less than 31 inches from the walking/working surface and its highest point is no more than 42 inches from the walking/working surface.
4) Stanchions, after being rigged with warning lines, shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line and in the direction of the floor, roof, or platform edge
5) The rope, wire, or chain shall have a minimum tensile strength of 500 pounds and after being attached to the stanchions, shall support without breaking, the load applied to the stanchions as prescribed above, and shall be attached to each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in the adjacent section before the stanchion tips over.

Anchorage Points

Anchorage Points shall be capable of supporting at least 5,000 pounds per attached employee, if designed as part of complete fall arrest system which maintains a safety factor of at least two. When using a position systems that limits free fall to two feet or less, a 3000lb anchorage per employee attached is required.

Cable / Rope Grab Devices

Cable / rope grab devices are utilized exclusively for vertical work such as climbing pile hammer leads, formwork, and suspended personnel platforms. Cable or rope grab devices are prohibited from use on horizontal lifelines.

Trench

Where walkways are provided to permit employees to cross over excavations, they shall be a minimum of 18" in width, and guardrails are required on the walkway if it is four (4) feet or more above the excavation.

Operations & Maintenance

Safe access for operators or maintenance personnel to and from cranes and equipment shall be provided at all times, even though heights less than four feet do not require 100% fall protection.

Floor Openings & Hole Covers

Floor openings and hole covers shall be covered with materials capable of supporting four times the expected load and be clearly marked with the word “HOLE" or "COVER” All covers shall be secured to prevent unexpected displacement resulting from wind, equipment, or workers' activities and shall indicate “DO NOT REMOVE”. Holes great than 1” in diameter or greater shall be protected.

Formwork & Reinforcing Steel

Formwork and reinforcing steel fall protection is required for all employees working at heights of 6’ or more even if using a positioning device while moving vertically and/or horizontally on the vertical face of rebar assemblies or formwork. Approved PFAS devices include self-retracting lifelines and/or v-style two legged lanyards and a full body harness.

Ramps, Runways & Other Walkways

A guardrail system shall protect employees using ramps, runways or walkways See guardrail system requirement section of this policy.

Scaffolding

A written fall protection plan will be used until standard guardrails, mid rails and toe boards are installed 100% connection shall be required on scaffolding.

Equipment and Trucks – Loading & Unloading

When loading, unloading deliveries, assembling, disassembling, or servicing equipment a method of fall protection shall be in use just as in any other situation where fall hazards exist from heights greater than four (4) feet. The job hazard analysis and daily risk assessments shall include fall prevention / protective measures for these tasks.

Inspection, Care, Replacement Criteria

1) Fall protection equipment shall be visually inspected prior to each use.
2) Store personal fall protection equipment separately, in a cool dry place, not subjected to direct sunlight and away from tools and sharp objects to prevent cuts or other damage. Harnesses shall be kept off floors and away from exposures to chemicals that degrade synthetics. Ideally, body harnesses and lanyards, shall be stored on a hook or hanger.
3) Use all fall protection equipment for its intended purpose only.
4) Abide by all weight capacity limitations for protective devices.
5) When a harness or other fall protection item becomes worn or damaged, or is suspected to be damaged, and/or it has been involved in arresting a fall, it shall be taken out of service and immediately returned to the employee’s supervisor for replacement.
6) Semi-Annually harness inspections shall be completed on the Company Name Full Body Harness inspection form.

Retrieval & Rescue

Retrieval and rescue methods shall be identified in the Job Hazard Analysis (JHA) and Daily Risk Assessment (DRA) planning and be communicated to employees prior to the start of any work activities where fall hazards are present. Rescue plans shall be communicated to other employees in the immediate vicinity of those workers who will be utilizing fall protection equipment, as fall victims are not normally able to assist in their own rescue and time is of the essence when retrieving a fall victim.

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 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 but not including ladders.*

- 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 10 feet: (WAC 296-880-10020 & 30005)

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

4 foot and 10 Foot Rule 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 Groveland may recognize as inspecting or estimating include:

Measuring a wall at roof-level to determine the amount of materials needed for a project.

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.

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.

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 fall protection 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.

- 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.

ACME requires that employers provide for "prompt rescue of employees in the event of a fall or 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
- Ensuring that a worker receives standard trauma resuscitation once rescued. Some authorities recommend that the patient be transported with the upper body raised
- 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 o 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 o 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 on low pitched surfaces.
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.

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, Groveland will use practical means to protect workers 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.

SCAFFOLDING

PURPOSE

All scaffolding in use on projects shall comply with all Groveland Construction and regulatory standards. An authorized competent person shall inspect the scaffolding before each use to ensure the assembly has not been altered or compromised and that it is safe to use. The competent person shall tag the scaffolding as complete, ready for service, or incomplete.

HAZARD ANALYSIS / PLANNING

In some situations, the manufacturer may be required to design the scaffold configuration.

1) Determine ground conditions, strength of structures, and general site conditions by surveying the jobsite work area prior to each activity. Weather conditions, overhead obstructions, power lines, and other work activities in the area need to be considered.
2) Identify the scaffolding designs that best fit the job requirements.
3) Include inspection processes in the planning that check for:
    a) Excessive rust and signs of metal fatigue
    b) Straightness of members and weld integrity
    c) Inspect coupling pins for alignment and locking devices on frames/braces
    d) Inspect cross braces and center pivot on cross braces
    e) Inspect caster brakes
    f) Detail the appropriate fall protection measures that need to be utilized.

SCAFFOLD USE

Scaffolds and scaffold components shall be inspected and tagged by a competent person before each work shift and after any occurrence that could have caused damage to the scaffolding. Never overload scaffold components beyond their rated capacity.

Scaffolds shall not be moved with employees on them.

PRACTICES & RESTRICTIONS

1) Employees shall be prohibited from working on scaffolds covered with slippery materials like ice, snow, oils, except as necessary for removal of such materials.
2) Suspension ropes shall be protected from heat sources, corrosive substances, and sharp objects.
3) Good housekeeping practices shall be exercised to keep the scaffold free of debris.
4) Makeshift devices to increase height for employees shall not be permitted.

COMPETENT & QUALIFIED PERSONS

Competent Person

A competent person shall supervise and direct any scaffold erections, moves or dismantling. Only experienced and trained employees selected by the competent person shall be permitted to perform this work.

Responsibilities

1) A competent person shall determine the appropriate fall protection method (examples –retractable reels, fall protection plans, aerial lifts), to be used by employees erecting or dismantling scaffolds and ensure employees are trained on the proper application of fall protection.
2) A competent person shall supervise the erection, movement, alteration, and disassembly of the scaffold. Scaffold manufacturer's recommendations shall be reviewed and followed.
3) Every employee who is involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting scaffolds shall be trained by a competent person.

Each Employee Shall Agree That:

1) Unless deemed safe by a competent person all scaffolding work during storms or high winds shall be prohibited.
2) Scaffold components manufactured by different manufacturers shall not be intermixed unless components fit together, and the procedure is approved by a competent person
3) Scaffolds and scaffold components shall be inspected for visible defects by a competent person before each shift, and after any occurrence which could affect a scaffold's structural integrity.

REQUIRED EMPLOYEE TRAINING

A competent person shall train employees on the following topics, as applicable:

1) The nature of scaffold hazards.
2) The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold being used.
3) The design criteria, maximum intended load carrying capacity and intended use of the scaffold.

RETRAINING

Each employee shall be retrained when there is reason to believe that he/she lacks the skill or understanding needed work safely when erecting, using or dismantling scaffolds. Retraining shall be required in at least the following situations:

1) Where worksite changes present hazards for which the employee has not been previously received training.
2) Where changes in the types of scaffolds, fall protection, or other equipment present hazards for which the employee has not been previously received training.
3) Where an employee’s work inadequacies in work involving scaffolds indicate that the employee has not retained the required information.

CAPACITY

Each scaffold and scaffold component shall be capable of supporting, without failure, its own weight and at least 4 times the maximum intended load applied or transmitted to it.

SCAFFOLD PLATFORM CONSTRUCTION

1) Each platform on all working levels of scaffolds shall be fully planked or decked between the front uprights and the guardrail supports as follows:
2) Each platform unit (scaffold plank, fabricated plank, fabricated deck, or fabricated platform) shall be installed so that the space between adjacent units is no more than 1 inch wide, except where the employer can demonstrate that a wider space is necessary (for example, to fit around uprights when side brackets are used to extend the width of the platform).
3) Platforms shall be planked or decked as fully as possible and the remaining open space between the platform and the uprights shall not exceed 9-1/2 inches. 2. Platforms used solely as walkways or solely by employees performing scaffold erection or dismantling are not required to be fully planked or decked. Each scaffold platform and walkway shall be at least 18 inches wide.
4) Each ladder jack scaffold, top plate bracket scaffold, roof bracket scaffold, and pump jack scaffold shall be at least 12 inches wide. There is no minimum width requirement for boatswains' chairs.
5) Where scaffolds shall be in areas where platforms and walkways cannot at least be 18 inches wide, such platforms and walkways shall be as wide as feasible, and employees on those platforms and walkways shall be protected from fall hazards by the use of guardrails and/or personal fall arrest systems.
6) Each end of a platform unless cleated, or otherwise restrained by hooks or equivalent means, shall extend over the centerline of its support at least 6 inches.
7) Each end of a platform 10 feet or less in length shall not extend over its support more than 12 inches, unless the platform is designed and installed so that the cantilevered portion of the platform is able to support employees and/or materials without tipping, or has guardrails which block employees’ access to the cantilevered end.
8) Each end of a platform greater than 10 feet in length shall not extend over its support more than 18 inches unless it is designed and installed so that the cantilevered portion of the platform is able to support employees without tipping, or has guardrails which block employee access to the cantilevered end.
9) On scaffolds where scaffold planks are abutted to create a long platform, each abutted end shall rest on a separate support surface. This provision does not preclude the use of common support members, such as "T" sections, to support abutting planks, or hook on platforms designed to rest on common supports.
10) On scaffolds where platforms are overlapped to create a long platform, the overlap shall occur only over supports, and shall not be less than 12 inches unless the platforms are nailed together or otherwise restrained to prevent movement.
11) At all points of a scaffold where the platform changes direction, such as turning a corner, any platform that’s rests on a bearer at an angle other than a right angle shall be laid first, and platforms which rest at right angles over the same bearer shall be laid second, on top of the first platform.

12) Wood platforms shall not be covered with opaque finishes, except that platform edges may be covered or marked for identification. Platforms may be coated periodically with wood preservatives, fire-retardant finishes, and slip resistant finishes; however, the coating may not obscure the top or bottom wood surfaces.
13) Scaffold components manufactured by different manufacturers shall not be intermixed unless the components fit together without force and the scaffold's structural integrity is maintained by the user and a competent person determines the resulting scaffold is structurally sound.
14) Scaffold components made of dissimilar metals shall not be used together unless a competent person has determined that galvanic action shall not reduce the strength of any component.

SPECIFIC REQUIREMENTS

Supported (Frame) Scaffolds

Supported scaffolds with a height to base width (including outrigger supports, if used) ratio of more than four to one (three to one in California) shall be restrained from tipping by guying, tying, bracing, or equivalent means, as follows:

1) Guys, ties, and braces shall be installed at locations where horizontal members support both inner and outer legs.
2) Guys, ties, and braces shall be installed according to the scaffold manufacturer's recommendations or at the closet horizontal member to the 4:1 height and be repeated vertically at locations of horizontal members every 20 feet or less thereafter for scaffolds 3 feet wide or less, and every 26 feet or less thereafter for scaffolds greater than 3 feet wide. The top guy, tie or brace of completed scaffolds shall be placed no further than 4:1 height from the top. Such guys, ties and braces shall be installed at each end of the scaffold and at the horizontal intervals not to exceed 30 feet (measured from one end [not both] towards the other).
3) Ties, guys, braces, or outriggers shall be used to prevent the tipping of supported scaffolds in all circumstances where an eccentric load, such as a cantilevered work platform, is applied or is transmitted to the scaffold.
4) Supported scaffold poles, legs, posts, frames, and uprights shall bear on base plates and mudsills or other adequate firm foundation.Adequate mudsills or other rigid footing, capable of withstanding the maximum intended load, shall be used. All stationary metal scaffold legs, including those of outriggers, shall rest upon base plates available from the manufacturer for this service. When the scaffold or outrigger is resting on earth or soft material, the base plates shall rest on and be secured to the equivalent of a 2-inch by 10-inch by 10-inch wooden base.
5) Unstable objects shall not be used to support scaffolds or platform units.
6) Unstable objects shall not be used as working platforms.
7) Supported scaffold legs, poles, posts, frames, and uprights shall be plumb and braced to prevent swaying and displacement.

SUSPENSION SCAFFOLDS

1) Support devices shall be capable of supporting at least four times the load imposed.

2) Outrigger beams, when used, shall be structural metal or equivalent and restrained against movement.
3) Inboard ends of suspension beams shall be stabilized by bolts or other direct connections to the floor or roof deck and evaluated by a competent person.
4) Suspension rope on winding drum hoists shall not contain less than four wraps of rope at the lowest point of scaffold travel. Suspension ropes used with other types of hoists shall have a designed/provided means to prevent the rope end from passing through the hoist.
5) The use of repaired or damaged rope is prohibited.
6) A competent person prior to each work shift, and after any occurrence that could have possibly adversely affected any components shall inspect ropes, anchor points, and connections.
7) Gasoline-powered equipment and hoists shall not be used.
8) Braking devices shall be automatic when an instantaneous change in momentum, or accelerated over-speed occurs.
9) Two-point and multi-point scaffolds shall be tied or secured otherwise to prevent from swaying and inspected by a competent person.
10) Devices whose sole function is to provide emergency escape and rescue shall not be used as working platforms.

MOBILE SCAFFOLDS

1) Shall be braced by cross, horizontal or diagonal braces to prevent racking or collapse and vertical members squared and aligned.
2) Shall have all brace connections secured and shall be plumb, level and square.
3) Scaffold casters/wheels shall be equipped with positive locking devices to prevent movement while in use.
4) Manual force used to move the scaffold shall be applied as close to the base as possible.
5) Only power systems designed to move mobile scaffolds should be used. Do not use forklifts, trucks, etc.
6) Employees shall not be allowed to ride on scaffolds.
7) Platforms shall not extend outward beyond the base supports unless outrigger frames or equivalent devices are used.
8) Caster stems and wheel stems shall be pinned or positively secured into scaffold legs.

SCAFFOLD ACCESS AND LADDERS

Access shall be provided for all working levels of a scaffold. When scaffold platforms are more than 18 inches above or below a point of access, portable ladders, hook-on ladders, attachable ladders, stair towers, stairway-type ladders, ramps, walkways, integral prefabricated scaffold access, direct access from another scaffold, structure, personnel hoist, or similar surface shall be used. Cross braces or framed corners as means of access are prohibited!

Stairway Ladders

1) The bottom step shall not be more than 24 inches above the scaffold supporting level.
2) Rest platforms shall be provided at 12-foot maximum vertical intervals.

3) Minimum step width of 16 inches (mobile stairway-type ladders may have minimum step width of 11.5 inches).
4) Treads and landings shall to be slip resistant.

Stair Towers

1) The bottom step shall not be more than 24 inches above scaffold supporting level.
2) Handrails shall be provided at all levels with adequate hand hold for employee grasping, surface smooth (free of objects which could puncture), at least three inches from other objects, and at least 28 to 37 inches high from the surface of the tread.
3) Landing platforms at least 18 inches wide by 18 inches long at each level.
4) Stairway between stair rails shall be at least 18 inches wide.
5) Treads and landings have slip resistant surfaces.
6) Stairways shall be installed between 40 and 60 degrees from horizontal.
7) Riser height and tread depth shall be uniform within 1/4 inch.
8) Stair towers are preferred over ladders for access to different levels.

Ramps & Walk Ways

1) 4 feet or more above lower levels shall have guardrail systems.
2) Slope of ramp or walkway shall not be inclined more than one (1) vertical to three (3) horizontal (or 20 degrees above the horizontal).

End Frame Access

1) Shall be specifically designed and constructed for use as ladder rungs.
2) Ladder rung length shall be at least 8 inches wide, maximum spacing between rungs not to exceed 16 3/4 inches and uniformly spaced.
3) Rest platforms provided every 24 feet.

Erecting / Dismantling Access

1) A safe means of access shall be provided for each employee erecting or dismantling a scaffold.
2) Hook on attachable ladders shall be installed as soon as scaffold erection has progressed to a point that permits safe installation and use.
3) Tubular welded scaffold with horizontal members that are parallel, level and not more than 22 inches apart vertically, may be used for access.
4) Cross-braces on tubular welded frame scaffolds shall not be used for access.

Warning Tag Procedure

All scaffolding shall have an approved tag at the point of access, be marked legibly and signed by the designated competent person. The appropriate tags shall be visible on all erected, moved, dismantled or altered scaffolds.

LADDERS & STAIRWAYS SAFETY

PURPOSE

Stairways and ladders are a major source of injuries in construction. 16% of all fatal falls are off ladders and approximately 50% of all falls are from ladders. Stairways, as a major pathway are frequently traveled while workers are carrying objects which can affect balance and one's ability to catch oneself when losing balance.

The company shall train on the hazards of working from ladders, the hazards of climbing and descending ladders while carrying objects or having muddy feet and the importance of proper inspections and use. The following information provides some rules and guidelines and user information.

GENERAL REQUIRMENTS

1) A stairway or ladder shall be provided at all personnel points of access where there is a break in elevation of 19 inches (48cm) or more, and no ramp, runway, sloped embankment, or personnel hoist is provided.
2) When there is only one point of access / egress, it must be kept clear at all times. If work must be done in an area that blocks a ladder or stair access, a second access pathway must be provided.
3) A double- cleated ladder or two or more separate ladders shall be provided when ladders are the only means of access or exit from a working area for 25 or more employees, or when a ladder is to serve simultaneous two-way traffic.

Stairways

1) Stairways must be kept clear at all times. Plastic, paper or other debris shouldn't be allowed to accumulate on stairs.
2) Electrical cords and other objects also should not be allowed to block stair landings or treads.
3) Stairways should also be lit to a minimum of 3-foot candles. Planning should be such that lighting will be provided in stairwells if power is lost.
4) Stairways that will not be a permanent part of the structure on which construction work is performed must have landings at least 30 inches deep and 22 inches wide at every 12 foot or less of vertical rise. Stairways must be installed at no less than 30 degrees and no more than 50 degrees from the horizontal.
5) Stairways having four or more risers or rising more than 30 inches, whichever is less, shall be equipped with:
    a) At least one handrail; and one stair rail system along each unprotected side or edge.
    b) The height of stair rails shall be as follows:
    c) Stair rails shall be not less than 36 inches from the upper surface of the stair rails system to the surface of the tread, in line with the face of the riser at the forward edge of the tread.
    d) The height of handrails shall be not more than 37 inches nor less than 30 inches from the upper surface of the handrail to the surface of the tread, in line with the face of the riser at the forward edge of the tread.

e) When the top edge of a stair rail system also serves as a handrail, the height of the top edge shall be not more than 37 inches nor less than 36 inches from the upper surface of the stair rail system to the surface of the tread, in line with the face of the riser at the forward edge of the tread.

Midrails

1) Midrails, screens, mesh, intermediate vertical members, or the equivalent, shall be provided between the top rail of the stair rail system and the stairway steps. Midrails shall be halfway between the tread and the stair rail.
2) When intermediate balusters are used, the spacing must not be more than 19” apart.
3) Stair rails and handrails shall be surfaced as to prevent injury to employees from punctures or lacerations and to prevent snagging of clothing.
4) Handrails shall provide an adequate handhold for employees grasping them to avoid falling. There shall also be 3” minimum clearance behind the handrail and other objects.

Ladders

Most common violations included:

- Failure to extend ladder side rails at least 3 feet above the upper landing surface.
- Using ladders for purpose other than for which they are designed.
- Using the top of a stepladder as a step.
- Failure to clearly mark portable ladders that are structurally defective or withdrawing them from service.
- Failure to use ladders on stable and level surfaces

Ladder Accidents

Many ladder accidents are a result of improper selection and use. Tasks are not well planned to determine the right equipment for the conditions; compressed schedules and not having the right tools on the job often lead to misuse of what is available. Poor maintenance and condition of ladders can increase the risk of injuries.

Selecting The Correct Ladder

Formal preplanning helps determine the means, methods, material, manpower and time required to safely accomplish any given task. Selecting the appropriate ladder or other means to access working areas is an integral part of the preplanning process.

To determine the right ladder for the job, you must know the height of the work, weight and bulk of the material and tools handled, weight and skill of the worker, and surface conditions where the ladder is placed. In some cases where the working surfaces are soft or uneven, a ladder may be inappropriate and fixed scaffolding or articulating lift may be needed.

The ladder must be rated to carry the weight of the material, tools and worker. The minimum type of ladder to be used in construction is Type I, which is rated for 250

pounds. Type IA with a rating of 300 pounds or type IAA with a rating of 375 pounds is preferable.

Portable ladders

1) Should be high enough so the work can be done at eye level without using the top two steps.
2) Extension ladders should extend above the landing surface and be secured to prevent movement.
3) Nonconductive ladders must be used in close proximity to be energized electrical equipment. The most common nonconductive ladders in use are fiberglass.
4) Refer to the manufacturers guide for care and inspection.
5) Wood ladders are discouraged, and aluminum ladders shall only be used when there is no potential for contact with electrical sources.
6) When setting up ladders for access to upper levels, it is recommended to add an accessory to the extension ladder that provides the 3’ extension above the floor level and provides protection behind the ladder.
7) Fiberglass ladders used against concrete surfaces can wear from the abrasion against the concrete.
8) If the extension is not added, place something to pad the wear surface between the rails and the building.
9) Ladder access points shall be properly set up so that workers cannot back off the edge at the ladder point and ladder accesses should not be configured so that workers have to climb over or between guardrails when possible.
10) Workers must be trained in the selection, inspection and use of ladders. Supervisors must ensure the worker is qualified to perform, knows the scope of
11) work and the hazards associated with the task.
12) Ladders must always be used as designed and intended.

Ladder Guidelines

1) Where the total length of a climb equals or exceeds 24 feet, fixed ladders shall be equipped with ladder safety devices, self-retracting lifelines and rest platforms at intervals not to exceed 150 feet, or a cage or well and multiple ladder sections, with each section not to exceed 50 feet in length.
2) The base of ladders must always be kept clear of trip hazards, debris and (as much as is possible) mud.
3) When ladders are being used outside it is helpful to provide a boot brush or clean pad at the base of the ladder to assist with workers keeping footwear clear of mud prior to climbing the ladder.

Ladder Use

1) Portable ladders must extend 3 ft. above the upper landing surface when used for access.
2) Ladders must be oil and grease free.
3) Ladders must not be loaded beyond the max intended load. Use ladders only for purpose designed for.

4) Portable extension ladder shall be set up such that the horizontal distance from the top support to the foot of the ladder is approximately one-quarter the working length.
5) Wood job made portable extension ladders shall be set up such that the horizontal distance from the top support to the foot of the ladder is approximately one-eighth the working length. ensure "one and eight" pitch for wood job-made ladders.
6) Fixed ladders must not be pitched greater than 90 deg from horizontal.
7) Place ladders only on stable surface.
8) Ladders must not be placed on slippery surfaces, or must have slip-resistant feet.
9) Do not cover slip resistant feet.
10) Ladders must not be place in locations where they can be displaced by work activities, i.e. driveways doors etc.
11) If working from a ladder near a door, post a worker to secure the door to prevent unexpected opening.
12) Area around top and bottom of ladder must be kept clear.
13) Top of non-self-supporting ladder must be placed so that two side rails are supported equally.
14) The top cap or top step of a stepladder must not be used as a step. 15) Cross-bracing on rear section of stepladder must not be used for climbing.
15) Ladders must be inspected anytime ladder safety is in question.
16) Portable and fixed ladders with defects should be marked immediately or be tagged with "DO NOT USE" etc. and withdrawn from service.
17) Repaired ladders must meet original design criteria before being returned to service.
18) Single-rail ladders must not be used.
19) Workers must face ladder when climbing up or down.
20) Workers must use at least one hand to grasp the ladder when climbing up or down.
21) Workers must not carry any load that could cause loss of balance.
22) Never adjust a ladder while occupied, vertically or horizontally.
23) Ladders that do not pass inspection must immediately be removed from service.
24) If they are not destroyed immediately add a red tag stating “Defective – do not use”.
25) Whenever manufactured ladders have damaged or missing warning and use stickers, contact the supplier with the model number and length to obtain new stickers.

RESPIRATORY PROTECTION PROGRAM

VOLUNTARY USE OF RESPIRATORS

Regulatory standards require that voluntary use of respirators, when not required by the company, must be controlled as strictly as under required circumstances. When a respirator is not required but an employee chooses to use one, they are covered by the voluntary use rules. Regardless of circumstance, the respiratory standard and manufacturer's recommendations must be adhered to for cleaning, inspection and storage of this equipment. Employees may request respiratory equipment even if the supervisor has determined that it is not required.

See also, WAC 296-842-11005(4)

Table 2

Advisory Information for Employees Who Voluntarily Use Respirators

• Respirators protect against airborne hazards when properly selected and used. Respirator usage that is required by DOSH or your employer is not voluntary use. With required use, your employer will need to provide further training and meet additional requirements in this chapter. DOSH recommends voluntary use of respirators when exposure to substances is below DOSH permissible exposure limits (PELs) because respirators can provide you an additional level of comfort and protection.

• If you choose to voluntarily use a respirator (whether it is provided by you or your employer) be aware that **respirators can create hazards for you,** the user. You can avoid these hazards if you know how to use your respirator properly AND how to keep it clean. Take these steps:

– Read and follow all instructions provided by the manufacturer about use, maintenance (cleaning and care), and warnings regarding the respirator's limitations.

– Choose respirators that have been certified for use to protect against the substance of concern. The National Institute for Occupational Safety and Health (NIOSH) certifies respirators. If a respirator is not certified by NIOSH, you have no guarantee that it meets minimum design and performance standards for workplace use.

■ A NIOSH approval label will appear on or in the respirator packaging. It will tell you what protection the respirator provides.

– Keep track of your respirator so you do not mistakenly use someone else's.

– **DO NOT** wear your respirator into:

■ Required use situations when you are only allowed voluntary use.

■ Atmospheres containing hazards that your respirator is not designed to protect against.

For example, a respirator designed to filter dust particles will not protect you against solvent vapor, smoke or oxygen deficiency.

SILICA POLICY

Crystalline silica is a naturally occurring material found in sand, gravel, rock and other materials. In the construction industry, it is most commonly associated with concrete, mortar, concrete blocks, sand, and gravel. The risk to workers occurs when crystalline silica is released into the atmosphere as a fine dust, which can be breathed into the lungs.

Chronic (long-term) exposure to silica can lead to a serious disease called silicosis. Silicosis is a disease of the lungs in which silica dust causes scars on the lung tissue and then scar tissue develops. This scarring greatly reduces the lungs capacity, causing a severe shortness of breath. There is presently no cure for Silicosis.

Any impact to concrete or masonry or the use of cement products must include a safety plan that controls the airborne particulate. Whenever workers silica exposures are above NIOSH's REL or ACGIH TLV, worker protections including respiratory protection must be provided.

There are many engineering controls that can be implemented to control silica dust as well as special tools that capture the dust are available. To determine silica exposures, contact the safety department. Some processes have been monitored and the historical data is available to assist projects with their planning.

DUST CONTROL

Many activities on construction sites generate dust. Some dust is hazardous to workers. Examples of such dust are asbestos, lead, and silica. Some non-hazardous forms of dust can be hazardous to persons who have compromised immune systems, such as persons with recent organ transplants, major surgeries, leukemia or aids. Some dust is hazardous to our clients work activities, such as in the high-tech industry. Dependent upon your work environment and work task, dust control may be required.

Dust control can be accomplished via many methods. The most common is separation from the dust generating activities from the public or other workers. Asbestos, lead and silica dust generating activities must be performed by following their applicable federal, state or local regulations as all three can cause permanent, irreversible health effects. Silica, for example is a listed known carcinogen.

There are many new tools available today that will remove the dust from the atmosphere as it is being created. There are also work methods, such as the use of water or hand tools instead of power tools for selective demolition that will limit, eliminate or control the dust. If the dust cannot be controlled or eliminated below the recognized permissible exposure limit, then personal protective equipment in the form of respiratory protection equipment may be required.

If you are performing work activities that generate dust, be sure that you have communicated with your supervisor to ensure that your work is not creating a health hazard to yourself and/or others around you. Our company and some of our clients take dust control very seriously and failure to follow the jobsites procedures can result in disciplinary action.

GENERAL REQUIREMENTS

Personnel who are most often exposed to silica are usually performing the following:

1) Grinding
2) Mixing mortar, concrete or other materials with silica
3) Cutting
4) Drilling
5) Scraping
6) Using powered equipment that produces a fine silica dust

Documented objective data must demonstrate that employee exposures to respirable crystalline silica will remain below the action level of 25 micrograms per cubic meter of air (25 µg/m3) as an 8-hour TWA under any foreseeable conditions. Permissible exposure limit (PEL) is a concentration of airborne respirable crystalline silica of 50 µg/m3, calculated as an 8-hour TWA.

You must assess the exposure of each employee who is or may reasonably be expected to be exposed to respirable crystalline silica at or above the action level in accordance with either Table 1 located in WAC, or by performing task specific air monitoring to identify the levels of airborne silica dust.

Where an employee performs more than one task in Table 1 of WAC during the course of a shift, and the total duration of all tasks combined is more than four hours, the required respiratory protection for each task is the respiratory protection specified for more than four hours per shift. If the total duration of all tasks in Table 1 of WAC combined is less than four hours, the required respiratory protection for each task is the respiratory protection specified for less than four hours per shift.

All company personnel (who perform duties where silica exposure may exist) must be protected from airborne silica dust hazards by one or more of the following methods:

1) Engineering controls such as HEPA vacuums, fans, blowers, or a wetting agent such as water.
2) Work practice controls shall be utilized when applicable, such as job rotation of workers.
3) Personal protective equipment shall be utilized as determined necessary, such as appropriate respirators and cartridges, gloves, safety glasses, face shields and Tyvek suits.
4) Respirators shall be selected, used and maintained in accordance with state regulations.

TRAINING & MONITORING

Each employee who may be exposed to silica shall be informed at the beginning of their assignment to such an exposure(s) and shall be trained in the hazards, short- & long-term health effects, working levels, and proper protection from respirable silica dust. The training shall be documented. Medical monitoring may be necessary and will be explained by your supervisor.


DANGER
SILICA DUST HAZARD
EXPOSURE TO CRYSTALLINE SILICA
DUST CAN CAUSE CANCER
OR SILICOSIS
AVOID BREATHING DUST

MORTAR MIXING

1) Understanding the Hazards
    a) Chemical Hazards:
        - Mortar mixes often contain cement, which can cause skin irritation, respiratory issues, and eye damage.
        - Silica dust, a common component in some mortar mixes that can lead to serious lung conditions if inhaled.
    b) Physical Hazards:
        - The mixing process involves moving heavy materials and equipment, which can lead to musculoskeletal injuries if proper lifting techniques are not used.
        - Equipment such as mixers can pose mechanical risks if not properly maintained or used.
    c) Environmental Hazards:
        - Mixing and handling mortar often occur in various weather conditions, which can affect the safety of the task. For example, working in wet conditions can lead to slips and falls.

2) Personal Protective Equipment (PPE)
    a) Respiratory Protection:
        - Use masks or respirators rated for dust when working with or around dry mortar and the airborne dust is above the Permissible Exposure Limit (PEL)
        - The employer shall ensure that no employee is exposed to an airborne concentration of respirable crystalline silica in excess of 50 µg/m3, calculated as an 8-hour TWA.
    b) Eye Protection:
        - Safety goggles or face shields should be worn to protect against splashes and dust.
    c) Skin Protection:
        - Wear gloves and long-sleeve clothing to prevent skin contact with cement and mortar.
3) Safe Mixing Procedures
    a) Handling Materials:
        - Use proper lifting techniques and mechanical aids (e.g., forklifts) to handle heavy bags of mortar.
        - Store materials in a dry, cool area to prevent contamination or degradation.
    b) Equipment Use:
        - Ensure mixers and other equipment are well-maintained and inspected regularly for safety.
        - Follow manufacturer instructions for the operation and maintenance of equipment.
    c) Mixing Process:

- Mix in well-ventilated areas to minimize exposure to dust and fumes.
- Avoid excessive dust generation by controlling the speed and method of mixing.

BRICK CLEANING

Chemical Exposure

- Use only approved acids and follow manufacturer's instructions for dilution and application.
- Wear chemical-resistant gloves, tight fitting goggles, and face shield to protect from splashes. Wear appropriate clothing that covers exposed skin to minimize contact with acids.
- Ensure adequate ventilation to minimize inhalation of fumes
- The emergency washing facility must be kept within 50 feet and free of obstacles blocking their use. An employee must be able to reach the emergency eyewash facility within 10 seconds even when material in the eyes causes temporary blindness and confusion.
- In case of contact with acid:
    - Rinse affected area with water immediately, also under the eyelids for at least 15 minutes. Do not rub affected area.
    - Seek medical attention if irritation or injury persists
- A Limited Access Zone shall be established while the Brick wall is being cleaned. The Limited Access Zone shall conform to the following:
    - The limited access zone shall be established prior to the start of cleaning operation. Danger tape and/or a barricade will be erected to define the Limited Access Zone.
    - The limited access zone shall be equal to the length of the wall to be cleaned plus all levels of scaffolding and ground below where cleaning is taking place
    - No employees shall be permitted to enter the zone.
    - The limited access zone shall remain in place until the cleaning operation is complete.

FLAGGING & BARRICADES

GENERAL REQUIREMENTS

1) Job site workers with specific traffic control responsibilities must be trained in traffic control techniques, device usage, and placement.
2) All highway work zone traffic control plans, procedures and devices must, at a minimum, meet the manual on uniform traffic control devices.
3) Signs and symbols required for accident prevention shall be visible at all times when work is being performed and shall be removed or covered promptly when the hazards no longer exist.
4) Construction areas shall be posted with legible traffic signs at points of entry and all points of potential traffic hazards.
5) At times, it may be required to contact the State, County, or City for special constructed barricades, signage and other instructions.
6) Barricades and flagging will be used whenever needed to protect personnel and equipment from unknowingly entering into a hazardous situation.
7) Yellow flagging will be used to warn personnel of possible dangers while still allowing access to the area.
8) Red flagging will be used to halt traffic through a specified area of a known hazard and should not be crossed without specific permission by the installers.
9) Barricades may be used to support flagging. Barricades will be highly visible. Barricades left overnight in high traffic areas will be illuminated.
10) Flagging and barricades will be removed promptly when no longer needed.
11) The flagging of vehicular traffic on public roads and freeways shall be done by employees that have a valid flagger's certificate from an approved course. Flaggers shall wear a highly visible vest and hard hat.
12) Barricading the openings of incomplete structures, such as elevator shafts, incomplete stairways, or other large wall openings, need to be done with the use of standard railing having a vertical height of 42 inches to 36 inches, mid rail, and toe board, and must be able to withstand a minimum of 200-pound force with minimum deflection.

FLAGGERS

1) When operations are such that signs, signals, and barricades do not provide the necessary protection on or adjacent to a highway or street, flagging personnel, and other appropriate traffic controls shall be provided.
2) Flagging personnel are required to have training by an authorized person or agency. They MUST have in their personal possession a valid training certification card. All cards/training must be renewed every three years.
3) Flaggers shall not be assigned other duties while engaged in flagging activities.
4) Flaggers shall not use devices (for example, cell phones, pagers, radio headphones) that may distract their vision, hearing, or attention. Devices such as two-way radios used for communications between flaggers to direct traffic or ensure flagger safety are acceptable.
5) Flaggers shall receive appropriate breaks from flagging so they can remain attentive and alert. For the purpose of this rule, "appropriate break" means a rest

period of at least 10 minutes, on the employer's time, for each 4 hours of working time.
    a) Rest periods must be scheduled as near as possible to the midpoint of the work period.
    b) A flagger must not be allowed to work more than three hours without a rest period.
    c) Scheduled rest periods are not required where the nature of the work allows a flagger to take intermittent rest periods equivalent to 10 minutes for each 4 hours worked.
6) During darkness hours, flagger’s stations shall be illuminated sufficiently so that oncoming traffic can see them easily.
7) Flagging personnel shall stand on the shoulder of the road next to the lane of traffic being controlled, NEVER on the road itself unless they are behind barricades.
8) All flaggers must wear a high visibility safety garment designed according to Class 2 specifications in ANSI/ISEA 107-1999, American national standard for high-visibility safety apparel. Specifically, a garment containing at least 775 square inches of background material and 201 square inches of reflective material that encircles the torso and is placed to provide 360 degrees visibility around the flagger. The acceptable high visibility colors are fluorescent yellow-green, fluorescent orange-red or fluorescent red.
    a) Acceptable high visibility colors for hard hats: white, yellow, yellow-green, orange, red.
    b) When snow or fog limits visibility, a flagger must wear pants of any high visibility color other than white.
9) When it is not possible to position flaggers so they are not exposed to traffic or equipment approaching them from behind, methods must be implemented to ensure that flaggers have adequate warning of such traffic approaching from behind. The following examples of methods that may be used to adequately warn flaggers:
    a) Mount a mirror on the flagger's hardhat.
    b) Use a motion detector with an audible warning.
    c) Use a spotter.
    d) Use “jersey” barriers.
10) Hand signaling by flaggers shall be by use of sign paddles at least 18 inches in diameter, and in periods of darkness, the paddles must be reflective, with 6 inch letters.
11) Flaggers shall be provided with and shall wear a high visibility outer garment while flagging, and a high visibility hard hat. Areas where flaggers stand at night must be illuminated.
12) Flaggers should be far enough ahead of the place where work is being conducted so motorists can slow down and stop safely.
13) Flaggers should always face the traffic that is being controlled, but they should also be in position to see what is going on at the worksite. They should have direct and continuous communication with the worksite by use of a two-way radio, telephone, or similar communication device.

14)All flaggers must have a valid flagging card. Valid cards are less than 3 years old.

TRAFFIC CONTROL PLAN

When flaggers are used on a job that will last more than one day, a current site-specific traffic control plan must be developed and kept on site at all times. The purpose of this plan is to help move traffic through or around the construction zone in a way that protects the safety of the traveling public, pedestrians and workers. The plan must include, but is not limited to, such items as the following when they are appropriate:

- Sign use, sequencing and placement;
- Application and removal of pavement markings;
- Construction;
- Scheduling;
- Methods and devices for delineation and channelization;
- Placement and maintenance of devices;
- Placement of flaggers;
- Roadway lighting;
- Traffic Regulation

RIGGING AND LIFT DIRECTOR

The Washington Labor and Industries (L&I) has several requirements for lift directors, including:

- Certification
    - Lift directors must have a valid certificate issued by a testing organization with an accredited program.
- Presence
    - Lift directors must be present during lifting operations.
- Responsibilities
    - Lift directors are responsible for overseeing the work of the rigging crew and crane, and for ensuring that area preparations are complete before crane operations begin. They must also identify and evaluate hazards in the area where the crane will be set up and inform all employees of any hazards they find.
- Crane operation near power lines
    - Lift directors must ensure that crane operation near power lines only occurs when the requirements of WAC 296-155-53408 have been met.
- Crane assembly and disassembly
    - Lift directors must ensure that work involving the assembly and disassembly of a crane is supervised by an assembly/disassembly director.

Serious injuries and disabilities can occur if a lift director is not present to oversee lifting operations.