



**PACIFIC ONE**  

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**C O N S T R U C T I O N , I N C .**

**SAFETY & HEALTH  
PROGRAM**

# Job Site Safety and Health Information

Project Name: \_\_\_\_\_

General Contractor: \_\_\_\_\_

Project Address: \_\_\_\_\_

\_\_\_\_\_

Start Date: \_\_\_\_\_

Job Site Phone Number: \_\_\_\_\_

Nearest Health Care: Harborview Medical Center

325 9th Ave

Seattle, WA 98104

Pacific One Site Safety Rep: Mikey Metcalf  
425-647-5028

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Welcome to Pacific One Construction, Inc. As a member of our team, you have the privilege of helping to provide some of the best firestopping needs to new construction in the Greater Seattle area. You have also joined a company that is seriously committed to your well-being.

This well-being starts with safety, the subject of this manual. And safety starts with you. Pacific One, as an organization is made up of individuals—we are no more committed to safety as a company than each of us is committed to safety as an individual. By accepting and continuing employment with us, you are given many responsibilities. How you accept and carry them out—including your responsibility to do your job in a safe manner—has its effect on the welfare of your fellow employees, their families, the company, the construction industry, and our region.

Safety is a critical part of our success. Not only does it affect the quality of your working environment, it also affects how we do as a company. Customers, suppliers, prospective employees, regulatory agencies and others judge us partially on how we run our business. And one of the most visible ways of measuring us is in our safety record.

This Safety Manual is designed to help you operate in the safest possible manner. Ask your supervisor if you have any further questions on this manual. The policies here are constantly under review, and as a result may change without prior notice.

As a Pacific One employee, your safety responsibilities include:

1. Keeping physically fit and mentally alert.
2. Safe, careful, and efficient operation of equipment.
3. Compliance with all company rules.
4. Observance of all federal, state and municipal laws and regulations governing the operation of company equipment.

# GENERAL INSTRUCTIONS

## A. Overview

Industrial injuries create a no-win situation for everyone involved. Employees experience pain, suffering and incapacitation while the company suffers from the loss of the injured person's contributions. This document is designed to assist all personnel in assuring that such an undesirable situation will not develop in this company. It provides information and guidance for the establishment and maintenance of an injury-free work environment.

## B. Procedures

This document contains guidance for safety procedures to be followed and forms to be used. Supervisors are expected to integrate the procedures into the appropriate work activity and employees are expected to apply them on the job. The sample forms are to be used if they apply to the job concerned.

## C. Dissemination

A copy of this statement will be issued to all supervisory and management personnel. A copy of the policy statement will be posted on company safety and health bulletin boards and at the following locations:

1. **Pacific One's main warehouse located at 1108 8<sup>th</sup> Street Kirkland, WA**

## D. Regulations

A copy of the following documents will be maintained on each job site:

1. Chapter 155, Construction Safety Standards from the Division of Industrial Safety and Health, Washington State Department of Labor and Industries.
2. Our customized copy of this Accident Prevention Program sample outline.
3. The WISHA Poster, form F416-081-000, which tells employees and employers their rights under the Washington Industrial Safety and Health Act.

# **Pacific One Construction, Inc.**

## **SAFETY AND HEALTH POLICY**

The purpose of this policy is to develop a high standard of safety throughout all operations of Pacific One and to ensure that no employee is required to work under any conditions, which are hazardous or unsanitary.

We believe that each employee has the right to derive personal satisfaction from his/her job and the prevention of occupational injury or illness is of such consequence to this belief that it will be given top priority at all times.

It is our intention here at Pacific One to initiate and maintain complete accident prevention and safety training programs. Each individual from top management to the working person is responsible for the safety and health of those persons in their charge and coworkers around them. By accepting mutual responsibility to operate safely, we will all contribute to the well-being of our employees.

***Michael F Lipe***  
President

# RESPONSIBILITIES

Responsibilities for safety and health include the establishment and maintenance of an effective communication system among workers, supervisors and management officials. To this end, all personnel are responsible to assure that their messages are received and understood by the intended receiver. Specific safety and health responsibilities for company personnel are as follows:

## **A. Management Officials**

Active participation in and support of safety and health programs is essential. Management officials will display their interest in safety and health matters at every opportunity. At least one manager (as designated) will participate in the safety and health committee meetings, incident investigations and inspections. Each manager will establish realistic goals for implementing instructions for meeting the goals. Goals and implementing instructions shall be within the framework established by this document. Incentives will be included as part of the instructions.

## **B. Supervisors**

The safety and health of the employees they supervise is a primary responsibility of the supervisors. To accomplish this obligation, supervisors will:

1. Assure that all safety and health rules, regulations, policies and procedures are understood and observed.
2. Require the proper care and use of all required personal protective equipment.
3. Identify and eliminate job hazards quickly through job safety analysis procedures. (See the sample Job Safety Analysis form attached to this document.)
4. Inform and train employees on the hazardous chemicals and/or procedures they MAY encounter under normal working conditions or during an emergency situation. (See the sample hazard communication program.)
5. Receive and take initial action on employee suggestions, awards or disciplinary measures.
6. Conduct crew/leader meetings the first five minutes of each work shift to discuss safety and health matters and work plans for the workday.
7. Conduct walk-around safety inspections at the beginning of each job, and at least weekly thereafter.
8. Train employees (new and experienced) in the safe and efficient methods of accomplishing each job or task as necessary.
9. Review injury trends and establish prevention measures.
10. Attend safety meetings and actively participate in the proceedings.
11. Participate in incident investigations and inspections.
12. Promote employee participation in the safety and health program.
13. Actively follow the progress of injured workers and display an interest in their rapid recovery and return to work.

## **C. Employees**

As an employee of Pacific One, you're responsible to:

1. Observe all company safety and health rules and apply the principles of accident prevention in my day-to-day duties.
2. Report any job related injury, illness or property damage to my foreman and promptly seek treatment.
3. Report hazardous conditions and unsafe acts promptly to my foreman.
4. Observe all hazard warnings and no smoking signs.
5. Keep walkways and work areas clear of slipping and tripping hazards.
6. Do not report to work under the influence of alcoholic beverages or drugs nor consume them during the work day.
7. Refrain from fighting, horseplay, or distracting fellow workers.
8. Operate only the equipment for which I am authorized and properly trained. Observe safe operating procedures for this equipment.
9. Follow proper lifting procedures at all times.
10. Be alert to see that all guards and other protective devices are in their proper places before operating.
11. I will not wear cut-offs or ripped pants. I will wear a shirt at all times with a minimum of a 3" sleeve.
12. Proper footwear must be worn on all construction sites; WISHA approved safety shoes, according to section C of CH 155-212.
13. Hard hats must be worn in all required areas.
14. Employees shall use proper eye and face protection in situations where machines or operations present potential injury.



# Safety Disciplinary Policy

Pacific One believes that a safety and health Accident Prevention Program is unenforceable without some type of disciplinary policy. Our company believes that in order to maintain a safe and healthful workplace, the employees must be cognizant and aware of all company, State, and Federal safety and health regulations as they apply to the specific job duties required. The following disciplinary policy is in effect and will be applied to all safety and health violations.

The following steps will be followed unless the seriousness of the violation would dictate going directly to Step 2 or Step 3.

1. A first time violation will be discussed orally between company supervision and the employee. This will be done as soon as possible.
2. A second time offense will be followed up in written form and a copy of this written documentation will be entered into the employee's personnel folder.
3. A third time violation will result in time off or possible termination, depending on the seriousness of the violation.

# Procedure for Injury or Illness on the Job

## **A. Owner or lead person immediately takes charge**

1. Supervise and administer first aid as you wish (Good Samaritan Law applies).
2. Arrange for transportation (ambulance, helicopter, company vehicle, etc.), depending on the seriousness of the injury. Protect the injured person from further injury.
3. Notify owner or top management, if not already present.
4. Do not move anything unless necessary, pending investigation of the incident.
5. Accompany or take injured person(s) to doctor, hospital, home etc. (depending on the extent of injuries).
6. Take injured person to family doctor, if available.
7. Remain with the injured person until relieved by other authorized persons (manager, EMT, doctor, etc.).
8. When the injured person's immediately family is known, the owner or supervisor should properly notify family members, preferable in person, or have an appropriate person do so.

## **B. Documentation**

1. Minor injuries – requiring doctor or outpatient care: After the emergency actions following an injury, an investigation of the incident will be conducted by the immediate supervisor and any witness to determine the causes. The findings must be documented on our investigation form.
2. Major injuries – fatality or one or more hospitalizations: Top management must see that the Department of Labor and Industries is notified as soon as possible, but at least within 8 hours of the incident. Call or contact in person the nearest office of the Department or call the OSHA toll free central number (1-800-321-6742). Top management will then assist the Department in the investigation.
3. The findings must be documented on our incident investigation report form and recorded on the OSHA 300 log, if applicable. (Sample incident investigation report form included in this document.)

## **C. Near Misses**

1. All near-miss incidents (close calls) must be investigated.
2. Document the finding on the company incident investigation report form.
3. Review the findings at the monthly safety meetings or sooner if the situation warrants.

# Basic Rules for Accident Investigation

- The purpose of an investigation is to find the cause of an incident and prevent future occurrences, not to fix blame. An unbiased approach is necessary to obtain objective findings.
- Visit the incident scene as soon as possible – while facts are fresh and before witnesses forget important details.
- If possible, interview the injured worker at the scene of the incident and “walk” him or her through a re-enactment. Be careful not to actually repeat the act that caused the injury.
- All interviews should be conducted as privately as possible. Interview witnesses one at a time. Talk with anyone who has knowledge of the incident, even if they did not actually witness the mishap.
- Consider taking the signed statements in cases where facts are unclear or there is an element of controversy.
- Graphically document details of the incident: area, tools, and equipment. Use sketches, diagrams, and photos as needed, and take measurements when appropriate.
- Focus on causes and hazards. Develop an analysis of what happened, how it happened, and how it could have been prevented. Determine what caused the incident itself (unsafe equipment/condition, unsafe act, etc), not just the injury.
- How will you prevent such incidents in the future? Every investigation should include an action plan.
- If a third party or defective product contributed to the incident, save any evidence. It could be critical to the recovery of the claim costs.

Use Incident Investigation Report Form – Appendix C-1 to write up accident investigation report.

# SAFETY BULLETIN BOARD

- A. Purpose: To increase employee's safety awareness and convey the company's safety message. If a proper place can be found for a bulletin board, this is a good tool.
- B. The following items are required to be posted:
1. WISHA poster (F416-081-00)
  2. Industrial Insurance poster (F242-191-000)
  3. Wage and hour laws (F700-053-000)
  4. Citation and Notice  
If a Citation and Notice is received, it will be posted until all violations are abated.
  5. Emergency Telephone Number Posted
  6. OSHA 300 Summary
- C. Suggested Items:
1. Safety and health posters
  2. Minutes of crew/leader safety meetings
  3. Date, time, and place of next safety meeting
  4. Information about any recent incidents
  5. Safety awards/employee recognition
  6. Hazard communication information
  7. Pertinent safety concerns, news clippings and other off-the-job items that may be of significant importance to employees.

# FIRST AID TRAINING, KITS, AND POSTER

- A. Purpose: To afford the employees immediate and effective attention should an injury result, Pacific One will ensure that a certified first aider(s) will be available.
1. To meet the above objectives, the following procedures will be followed:
    - a. All supervisors or persons in charge of crews will be first aid trained unless their duties require them to be away from the jobsite. If so, other persons who are certified in first aid will be designated as the recognized first aider.
    - b. Other persons will be trained in order to augment or surpass the standard requirements.
    - c. Valid first aid cards are recognized as ones that include both first aid and cardiopulmonary resuscitation (CPR) and have not reached the expiration date.
  2. First aid training, kits, and procedures will be in accordance with the requirements of the general safety and health standards (WAC 296-800).
    - a. First aid kit locations at this jobsite include:
      1. Superintendent's vehicle
      2. Pacific One storage boxes located in garage area.
    - b. Matthew Hicks is designated to ensure that the first aid kits are properly maintained and stocked.
  3. Posters listing emergency numbers, procedures, etc., will be strategically located, such as on the first aid kit, at telephones, and in other areas where employees have easy access.

# FIRST AID PROCEDURES

We have first aid qualified workers here but we do not have “designated” first-aiders. First aid at the job site is done on a Good Samaritan basis.

If first aid trained personnel are involved in a situation involving blood, they should:

1. Avoid skin contact with blood/other potentially infectious materials by letting the victim help as much as possible, and by using gloves provided in the first aid kit.
2. Remove clothing, etc. with blood on it after rendering help.
3. Wash thoroughly with soap and water to remove blood. A 10% chlorine bleach solution is good for disinfecting areas contaminated with blood (spills, etc.).
4. Report such first aid incidents within the shift to supervisors (time, date, flood presence, exposure, names of others helping).

Hepatitis B vaccinations will be provided as soon as possible but not later than 24 hours after the first aid incident.

If an exposure incident occurs, we will immediately make available appropriate:

1. Post exposure evaluation
2. Follow-up treatment
3. Follow-up as listed in WAC 296-823, Occupational Exposure to Blood borne Pathogens.

# WORK CREW SAFETY MEETINGS

We believe that hard work and perseverance are required for the prevention of injuries and illnesses, with the crew leader being the key to a successful result.

- A. Purpose: To assist in the detection and elimination of unsafe conditions and work procedures.
  
- B. Procedures:  
The following guidelines will be followed:
  - a. These meetings are held at the beginning of each job and at least weekly thereafter, according to the various circumstances involved or when necessary to clear working procedures. No set pattern will suit all cases. It is important that the crew leader talk daily on injury prevention and immediately upon witnessing an unsafe act.
  - b. The attendance and subjects discussed will be documented and maintained on file for one year.
  - c. Copies of the minutes will be made available to the employees by posting or other means.
  
- C. Scope of Activities:
  - 1. Conduct in-house safety inspections with supervisor concerned.
  - 2. Investigate incidents to uncover trends.
  - 3. Review incident reports to determine means or elimination.
  - 4. Accept and evaluate employee suggestions.
  - 5. Review job procedures and recommend improvements (Job Safety Analysis Form is available in the Appendix)
  - 6. Monitor the safety program effectiveness.
  - 7. Promote and publicize safety.
  
- D. Documentation: The sample form in the Appendix D-1 is available to assist in documenting activities of crew/leader meetings. There is also a Safety Meeting Notice form that you can print out and copy to announce your next safety meeting.

# WALK-AROUND SAFETY INSPECTIONS

Walk-around safety inspections will be conducted at the beginning of each job, and at least weekly thereafter.

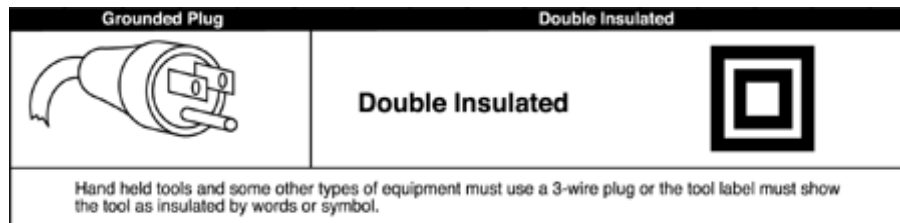
- The inspections will be conducted jointly by one member of management and one employee, elected by the employees, as their authorized representative.
- The inspections will be documented and the documentation will be made available for inspection by representatives of the Department of Labor and Industries.
- The records of the walk-around inspections will be maintained until the completion of the job.



# General Safety Rules

1. Always store materials in a safe manner. Tie down or support piles if necessary to prevent falling, rolling, or shifting.
2. Shavings, dust scraps, oil or grease should not be allowed to accumulate. Good housekeeping is a part of the job.
3. Trash piles must be removed as soon as possible. Trash is a safety and fire hazard.
4. Remove or bend over the nails in lumber that has been used or removed from a structure.
5. Immediately remove all loose materials from stairs, walkways, ramps, platforms, etc.
6. Do not block aisles, traffic lanes, fire exits, gangways, or stairs.
7. Avoid shortcuts – use ramps, stairs, walkways, ladders, etc.
8. Standard guardrails must be erected around all floor openings and excavations must be barricaded. Contact your supervisor for the correct specifications.
9. Do not remove, deface or destroy any warning, danger sign, or barricade, or interfere with any form of protective device or practice provided for your use or that is being used by other workers.
10. Get help with heavy or bulky materials to avoid injury to yourself or damage to material.
11. Keep all tools away from the edges of scaffolding, platforms, shaft openings, etc.
12. Do not use tools with split, broken, or loose handles, or burred or mushroomed heads. Keep cutting tools sharp and carry all tools in a container.
13. Know the correct use of hand and power tools. Use the right tool for the job.
14. Know the location and use of fire extinguishing equipment and the procedure for sounding a fire alarm.
15. Flammable liquids shall be used only in small amounts at the job location and in approved safety cans.
16. Proper guards or shields must be installed on all power tools before use. Do not use any tools without the guards in their proper working condition. No “homemade” handles or extensions (cheaters) will be used!

- 17. All electrical power tools (unless double insulated), extension cords, and equipment must be properly grounded.
- 18. All electrical power tools and extension cords must be properly insulated. Damaged cords must be replaced.
- 19. Do not operate any power tool or equipment unless you are trained in its operation and authorized by your firm to do so.
- 20. All electrical power equipment and tools must be grounded or double insulated.



- 21. Use tools only for their designed purpose.

# Ladder Safety Rules

## General:

- Inspect before use for physical defects.
- Ladders are not to be painted except for numbering purposes.
- Do not use ladders for skids, braces, workbenches, or any purpose other than climbing.
- When you are ascending or descending a ladder, do not carry objects that will prevent you from grasping the ladder with both hands.
- Always face the ladder when ascending and descending.
- If you must place a ladder over a doorway, barricade the door to prevent its use and post a warning sign.
- Only one person is allowed on a ladder at a time.
- Do not jump from a ladder when descending.
- All joints between steps, rungs, and side rails must be tight.
- Safety feet must be in good working order and in place.
- Rungs must be free of grease and/or oil.

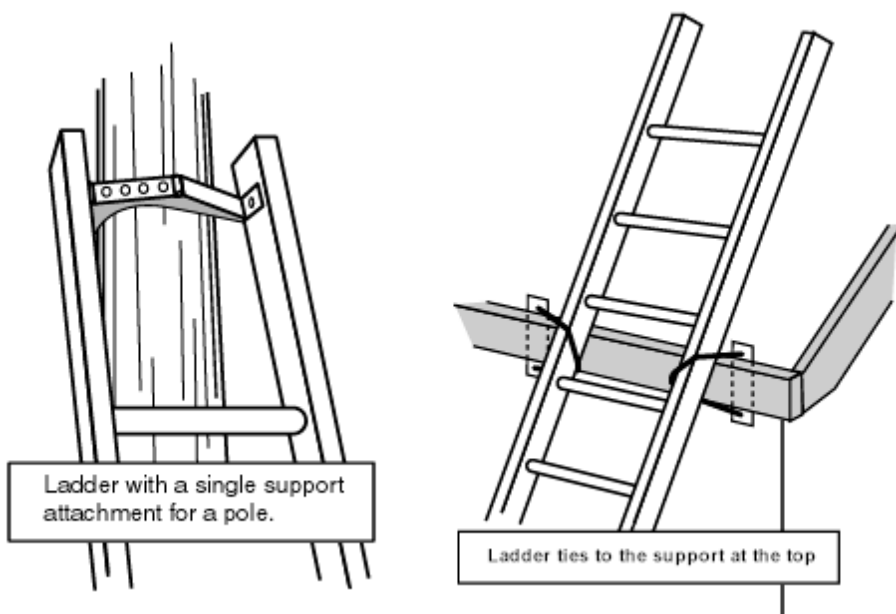
## Stepladders

- Do not place tools or materials on the steps or platform of a stepladder
- Do not use the top two steps of a stepladder as a step or stand.

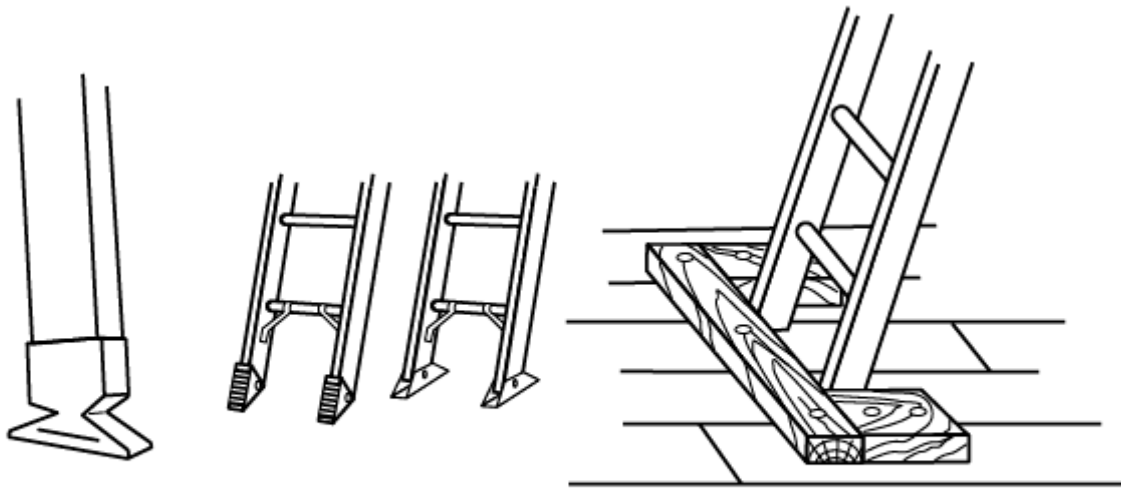
- Always level all four feet and lock spreaders in place.
- Do not use a stepladder as a straight ladder.

## Straight type or extension ladders

- All straight or extension ladders must extend at least three feet beyond the supporting object when used as an access to an elevated work area.
- After raising the extension portion of a two or more stage ladder to the desired height, check to ensure that the safety dogs or latches are engaged.
- All extension or straight ladders must be secured or tied off at the top.

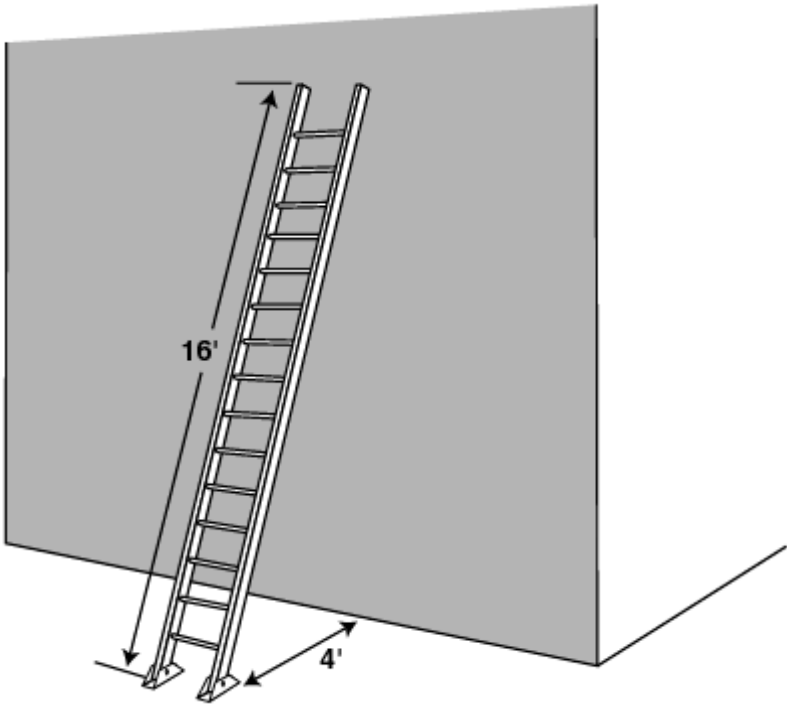


- All ladders must be equipped with safety (non-skid) feet.



Rubber Safety Feet	Spikes	Cleats Nailed to the Floor
Ladders with supports on the bottom.		

- Portable ladders must be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is about one-quarter of the working length of the ladder.



## **Storage and Handling of Ladders**

Whether your ladder is made of metal, wood, or fiberglass, always store it where it can be reached without causing an accident. Make sure to secure the ladder to its storage place using chains, ropes, clips or the like. Ladders should be placed horizontally on racks, but not if sufficient support exists: otherwise the side rails can sag. A ladder with sagging rails cannot be used safely.

Remember that a ladder is a tool and an important piece of safety equipment. Do not use it like a chair by sitting on the side rails. Never store material on your ladder, and protect it from contamination by dust, dirt, and other debris. Return it to a safe, secure storage area protected from the weather after use. Should your ladder be exposed to slippery substances like grease or oil, remove the slickness promptly using steam or industrial-strength cleaning solvents.

Good storage practices apply both in the shop and on the road. When transporting your ladder, check to ensure it is both properly secured and sufficiently padded with soft material. Vibrations and road bumps easily cause damage. Make sure enough support points are in place to prevent the sagging of your ladder's side rails.

Properly storing and moving your ladder helps keep it in good condition. Minor maintenance, such as bolt tightening and hinge lubrication, is also beneficial and easily done by the average person. Major repairs must be performed by qualified mechanics or your ladder's manufacturer.

### Metal Ladders

In addition to the guidelines listed previously, metal ladders have a couple of special requirements. Metal ladders exposed to any kind of fire or powerful chemicals are no longer safe and should not be used. Rustproofing is also recommended for metal ladders exposed often to water or rain.

### Wood Ladders

Treat wood ladders used outside to help stop weather damage. Sealants, such as linseed oil, provide either a transparent penetrating preservative or a clear finish. Paint is not an appropriate weather sealer, it can make cracks in the wood hard to see or hide them altogether. Keep wood ladders away from moisture and high heat, and always store them in well-ventilated places.

### Fiberglass Ladders

Fiberglass ladders should not be stored in locations exposed to sunlight or other sources of ultraviolet light. Ultraviolet light can cause the fiberglass to break down, compromising ladder safety. As with ladders made of metal, fiberglass ladders exposed to fire or strong chemicals are unsafe and should be discarded.

## **Provide Employee Training**

All employees using portable ladders must be trained on ladder safety before the start of their employment with Pacific One.

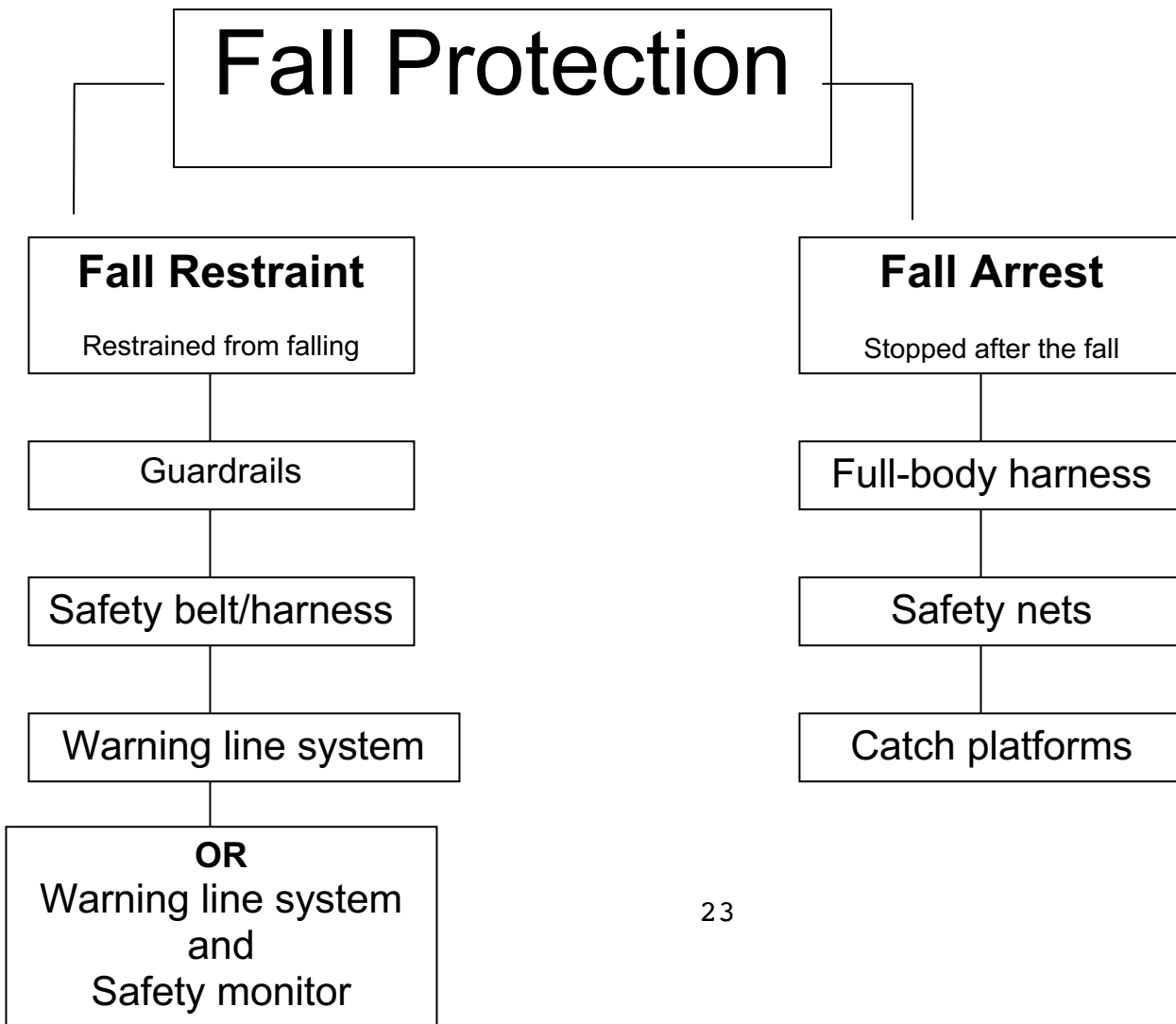
# Fall Protection Safety Rules

Falls from elevation are a major cause of injuries and deaths in the construction industry. We at Pacific One are committed to eliminating injuries caused by fall hazards by instituting a program of 100% fall protection for all fall hazards 10 feet or greater.

All work sites with fall hazards of 10 feet or more will have a site-specific fall protection work plan completed before any employees begin work. The employees on that specific job will be trained in the fall hazards and the method used to implement fall protection. The attached training guide will be used to train employees in the inspection and maintenance of their fall protection equipment, as well as fall protection selection criteria. All employees will use fall protection when there is exposure to a fall hazard of 10 feet or more. Employees who fail to follow this policy are subject to disciplinary action, up to and including dismissal.

The evaluation of the jobsite and the completion of the fall protection work plan will be done by a designated "competent person," who has an understanding of WISHA fall protection requirements, the fall protection systems available for use, and has the authority to take corrective action to eliminate employee exposure to fall hazards.

Fall protection will be provided either through the use of a fall arrest system or a fall restraint system as shown below and thoroughly described in the fall protection work plan available on site for review.



# Scaffold Safety Rules

## 1. General

Before starting work on a scaffold, inspect it for the following:

- a. Are guardrails, toeboards, and planking in place and secure?
  - b. Are locking pins at each joint in place?
  - c. Are all wheels on moveable scaffolds locked?
2. Do not attempt to gain access to a scaffold by climbing on it (unless it is specifically designed for climbing – always use a ladder).
  3. Scaffolds and their components must be capable of supporting four times the maximum intended load.
  4. Any scaffold, including accessories such as braces, brackets, trusses, screw legs, ladders, etc., damaged or weakened in any way, must be immediately repaired or replaced.
  5. Scaffold planks must extend over their end supports not less than 6 inches nor more than 12 inches, unless otherwise specifically required.
  6. Scaffold platforms must be at least 18 inches wide unless otherwise specifically required or exempted.
  7. Where persons are required to work or pass under the scaffold, scaffolds shall be provided with a screen between the toeboard and guardrail, extending along the entire opening. The screen must be made of No. 18 gauge U.S. Standard wire, ½ inch mesh or equivalent protection.
  8. All scaffolds must be erected level and plumb, and on a solid footing.
  9. Do not change or remove scaffold members unless authorized.
  10. Do not allow workers to ride on a rolling scaffold when it is being moved. Remove or secure all materials and tools on deck before moving.
  11. Do not alter any scaffold member by welding, burning, cutting, drilling, or bending.



# Motorized vehicles and equipment

1. Do not ride on motorized vehicles or equipment unless a proper seat is provided for each rider.
2. Always be seated when riding authorized vehicles (unless they are designed for standing).
3. Do not operate any motorized vehicle or equipment unless you are specifically authorized to do so by your supervisor.
4. Always use your seat belts in the correct manner.
5. Obey all speed limits and other traffic regulations.
6. Always be aware of pedestrians and give them the right-of-way.
7. Always inspect your vehicle or equipment before and after daily use.
8. Never mount or dismount any vehicles or equipment while they are still in motion.
9. Do not dismount any vehicle without first shutting down the engine, setting the parking brake and securing the load.
10. Do not allow other persons to ride the hook or block, dump box, forks, bucket or shovel of any equipment.
11. Each operator must be knowledgeable of all hand signals and obey them.
12. Each operator is responsible for the stability and security of his/her load.

# General Materials Handling Safety

General material storage safety:

- Make sure that all materials stored in tiers are stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, falling, or collapse.
- Post conspicuously the maximum safe load limits of floors within buildings and structures, in pounds per square foot, in all storage areas, except for floor or slab on grade. Do not exceed the maximum safe loads.
- Keep aisles and passageways clear to provide for the free and safe movement of material handling equipment or employees. Keep these areas in good repair.
- Do not store materials on scaffolds or runways in excess of supplies needed for immediate operations.
- Use ramps, blocking, or grading when a difference in road or working levels exists to ensure the safe movement of vehicles between the two levels.
- Do not place materials stored inside buildings under construction within 6 feet of any hoistway or inside floor openings, or within 10 feet of an exterior wall which does not extend above the top of the material stored.
  - (i) Anchor and brace temporary floors used in steel erection, concrete forms, and shoring and other “in-process equipment” that are to be left overnight or for longer periods of time to prevent their displacement in any direction. While in “interim storage,” this equipment is subject to the provisions in WAC 296-155-325(2)(i) (see previous bullet point: Do not place materials stored inside buildings under construction within 6 feet of any hoistway or inside floor openings, or within 10 feet of an exterior wall which does not extend above the top of the material stored.)
- Segregate non-compatible materials in storage.
- Do not stack lumber more than 20 feet high; if handling lumber manually, do not stack more than 16 feet high.
  - (i) Remove all nails from used lumber before stacking.
  - (ii) Stack lumber on level and solidly supported sills, and such that the stack is stable and self-supporting.
  - (iii) Stack stored lumber on timber sills to keep it off the ground. Sills must be placed level on solid supports.

- (iv) Place cross strips in the stacks when they are stacked more than 4 feet high.
- If not racked, stack and block structural steel, poles, pipe, bar stock, and other cylindrical materials as to prevent spreading or tilting.
  - (i) Wear heavy gloves when handling reinforcing steel.
  - (ii) When bending reinforcing steel on the job, use a strong bench set up on even dry ground or a floor to work on.
  - (iii) Carefully pile structural steel to prevent danger of members rolling off or the pile toppling over.
  - (iv) Keep structural steel in low piles, giving consideration to the sequence of use of its members.
  - (v) Stack corrugated and flat iron in flat piles, with the piles not more than 4 feet high; place spacing strips between each bundle.

Disposal of waste materials:

- Whenever materials are dropped more than 20 feet to any point lying outside the exterior walls of the building, use an enclosed chute of wood or equivalent material.
- When debris is dropped without the use of chutes, make sure that the area onto which the material is dropped is completely enclosed with barricades at least 42 inches high and 20 feet back from the projected edge of the opening above. Post at each level warning signs of the hazard of falling materials. Do not remove debris in this lower area until debris handling ceases above.
- Remove all scrap lumber, waste material, and rubbish from the immediate work area as the work progresses.
- Make sure to comply with local fire regulations if disposing of waste material or debris by burning.
- Keep all solvent waste, oily rags, and flammable liquids in fire-resistant covered containers until removed from the work site.

## Forklift safety

### General Onsite Forklift Safety:

- You must be 18 years or older to operate a forklift
- Only use a Forklift onsite if you have been trained in the specific forklift vehicle and are familiar with its use.
- Do not operate a forklift in an unsafe manner
- Always inspect the forklift for any defects or missing parts before use.
- Always check to make sure that there is a seatbelt.
- Do not operate a forklift without a seatbelt or without using a seatbelt.
- Do not modify a forklift.
- Always make sure that the forklift has a nameplate and that it is readable
- Forklifts are different from cars:
  - Forklifts steer from the rear, rather than the front, making it swing wide
  - Carries heavy loads, often in tight places and rough terrain
  - Can have reduced visibility
  - Can have a high center of gravity making it susceptible to turnover
  - Controls are different and more complicated
  - Heavier than most cars and trucks
- Never travel in a forklift with a raised bed.
- While Carrying a load near the maximum allowable capacity, be aware of the following:
  - Danger of tip over
  - Danger of losing load
  - Danger of being struck by falling load
- Moving Load:
  - Use extra caution when handling loads that approach the truck's maximum rated capacity:
    - Tilt the mast & forks back and position the heaviest part of the load against the carriage
    - Travel with the mast tilted back to keep the load stable. Never travel with the load tilted forward. Tilting the load forward increases the load distance and makes the load less stable.
- Driving on an incline:
  - Always drive with the load on the uphill side – go backwards driving down the incline and frontwards going up the incline to prevent tipping or losing control of the forklift.
  - If no loads on the forklift, do the opposite with forks pointing down the ramp.
- Be careful to be aware when driving around corners.
  - Make sure to look before moving around a corner
  - Don't drive too fast around corners
- What to do in the case of a forklift tip-over
  - If the forklift tips, keep your arms and legs inside and hold on to the steering wheel. Don't attempt to jump out – you can't move faster than the forklift can tip over.
- Forklift inspection and maintenance:

- All forklift must be examined as least daily before being used. Forklifts used on a round-the-clock basis must be examined after each shift. Check the following:
  - Fluid levels – oil, water, and hydraulic fluid.
  - Leaks, cracks or other visible defect in hydraulic hoses and mast chains.
  - Tire pressure and tire cuts or gouges.
  - Condition of the forks, including the top clip retaining pin.
  - Safety decals and nameplates in place and legible.
  - All safety devices working properly including the seat belt.
- Refueling a propane powered forklift:
  - Liquid propane is extremely cold when released to the atmosphere. If your skin is exposed to propane while refueling, you can get frostbite.
  - Shut off the engine before refueling.
  - Don't leave propane-powered forklifts near heat sources. When parking propane-powered forklifts for a long period of time, turn the tank valve off.
  - Any propane leak must be taken seriously. Propane vapor is heavier than air and will tend to sink to the lowest lying area. If not adequately dissipated, it will ignite when exposed to a spark or flame.
- Stacking Load on Pallets:
  - Make sure to use the following stacking methods:
    - Block: The upper level may be unstable if not encircled with wire or strapping.
    - Brick: Containers are interlocked by turning each level 90 degrees.
    - Pinwheel: Use where brick pattern is unstable
- Forklift Work Platforms:
  - Never lift other workers on forks unless you use an approved work platform with railings and safety harness or lanyard.
- Forklifts and Pedestrians:
  - Slow down and sound horn at intersections, corners, and wherever your vision is obstructed.
  - When provided, use flashing warning light or backup alarms when traveling in reverse.
  - Always look in the direction of travel.
  - Signal to pedestrians to stand clear.
  - Do not allow anyone to stand or walk under upraised forks.
  - When possible, make eye contact with pedestrians or other forklift operators before moving in their path.
- Forklift Do's and Don'ts:
  - No one else on the forklift except the operator, unless the forklift has a seat for a rider.
  - Always drive with the forks lowered and lower forks to floor when parking the forklift.
  - Watch overhead clearances – especially entering or exiting buildings or when you are raising a load on the forks.
- Don't leave your forklift unattended
  - A forklift is considered "unattended" when the operator is 25 ft. or more away from the vehicle even if it remains in his view, or whenever the operator leaves the vehicle and it is not in his view.

- When a forklift is left unattended, forks must be fully lowered, controls neutralized, power shut off, and brakes set. Wheels must be blocked if the truck is parked on an incline.
- Pedestrians working around forklifts:
  - Always be aware of your surrounding when working near or around forklifts.
  - If crossing the path of a forklift, always make eye contact with the forklift operator before crossing the forklifts path.
  - Listen for the sound of the horn of a forklift at intersections, corners, and wherever your vision is obstructed.
  - Be aware of flashing warning light or backup alarms when a forklift is traveling in reverse.
  - Stand clear of forklifts that are currently being operated.
  - Do not walk or stand under upraised forks.
  - Stay out of the mast of a forklift.
  - Do not ride on a forklift.
  - Do not stand on the forks of a forklift unless you instructed to by a supervisor and have the proper harness or lanyard.

## **Welding and Cutting Safety Rules**

1. Always follow the manufacturer's recommendations for setting up and operating equipment, selection of tip size, and gas cylinder operating pressures.
2. Always use a regulator to reduce gas cylinder pressure to the operating pressures recommended by the equipment manufacturer. All piping and equipment must meet the standards of the Compressed Gas Association.
3. Always ensure that all connections are leak tight. Each time connections are loosened and retightened each connection should be checked with a soap and water solution (oil free soap). Do not check with flame.
4. Before "lighting up" clear out each line by letting a small amount of gas flow (separately) to remove any mixed gases that might be in the lines.
5. Never use defective, worn or leaky equipment. Repair it or take it out of service.
6. Never use acetylene in excess of 15 psi pressure. Higher pressures with acetylene are dangerous. If the cylinder is not fitted with a hand wheel valve control, any special wrench required must be placed on the cylinder while the cylinder is in service. On manifolds, one wrench for each manifold will suffice.
7. Always have an appropriate fire extinguisher in good operating condition readily available when operating welding or cutting equipment.
8. Never perform welding, cutting, brazing, or heating operations in a poorly ventilated area. Avoid breathing fumes from these operations at all times, particularly when zinc, cadmium, or lead coated metals are involved.
9. Never perform welding or cutting operations near combustible materials (gasoline cans, paints, paper, rags, etc.).
10. Always protect yourself, others present, welding hoses, gas cylinders, and flammable materials in the area from hot slag and sparks from the welding and cutting operations.
11. The welder and spectators must always wear goggles to protect the eyes from injurious light rays, sparks and hot molten metal during welding, cutting, and heating operations. Eye protection must comply with the established ANSI Standards.
12. Always wear clean, oil free clothing during welding and cutting operations. Protect the hands with leather welding gloves to avoid burns from radiation and hot molten slag. Low cut shoes and trousers with cuffs or open pockets should not be worn.
13. Never use a match or cigarette lighter to light a cutting or welding torch. Always use a spark igniter. Fingers are easily burned by the igniting gas when a match or cigarette lighter is used.

14. Ensure that the material being welded or cut is secure and will not move or fall on anyone.
15. Never use a welding, cutting, or heating torch on a container that has held a flammable liquid. Explosive vapors can accumulate and linger in closed containers for extended periods of time.
16. Never use a regulator for gasses other than those for which it was designed for by the manufacturer since the diaphragm and seat materials may not be compatible with other gasses.
17. Never attempt to adapt and use a fuel gas or inert gas regulator on an oxygen cylinder. A special protective device is incorporated on the oxygen regulator to harmlessly dissipate the heat caused by the recompression when the cylinder valve is quickly opened. Such a protective device is not furnished on fuel gas and inert gas regulators.
18. Never tamper with the safety devices on cylinders, fuse plugs, safety discs, etc. and do not permit torch flames or sparks to strike the cylinder.
19. Always refer to the various gasses by their proper names. (Do not refer to oxygen as "air" or acetylene as "gas".)
20. All cylinders, particularly acetylene, should be restrained securely in an upright position to prevent accidents. A non-vertical position for an acetylene cylinder in use would allow the discharge of acetone through the regulator and into the cutting torch, clogging the mixer passages and creating a fire hazard. It would reduce the efficiency of the flame and contaminate the weld area. It also can cause voids in the porous material inside the cylinder, which can lead to acetylene explosions.
21. Store all gas cylinders not in use away from excessive heat sources, such as stoves, furnaces, radiators, the direct rays of the sun, and the presence of open flames. Cylinders in storage should always be secured in an upright position.
22. Keep all burning or flammable substances away from the oxygen or fuel gas storage area (at least 20 feet) and post "No Smoking" signs.
23. Upon completion of a welding, heating, or cutting operation immediately inspect the surrounding areas for smoldering embers. Allow at least one half hour to elapse before leaving the area and conduct another thorough inspection just before leaving. Also alert other personnel of fire possibilities.
24. Always have the properly fitted wrench to fasten a regulator to a cylinder. Never tighten the regulator by hand.
25. Always leave the fuel gas cylinder valve wrench in place when the cylinder valve is open so that it can be closed quickly in an emergency. Do not open acetylene valves more than one-quarter (1/4) turn.



26. Before connecting a regulator to a gas cylinder, open the cylinder valve for a moment. Called cracking the cylinder valve, this will blow out any foreign material that may have lodged in the valve during transit. Do not stand in front of the valve when “cracking”.
27. After attaching a regulator to a gas cylinder, be sure the regulator adjusting screw is fully released (backed off in a counter clockwise direction so that it swivels freely) before the cylinder valve is opened. Never stand in front of a regulator when you are opening a cylinder valve.
28. Always open the cylinder valve slowly so that gas pressure will build up slowly in the regulator (particularly in the oxygen cylinder). Quick opening of the cylinder valve causes a buildup of heat due to recompression of the gas. When combined with combustible materials, ignition and explosion may result.
29. If a leak develops in a fuel gas cylinder that cannot be stopped by closing the valve, immediately place the cylinder outside of the building away from possible fire or ignition sources in a location that is free from wind currents that might carry the gas to an ignition source.
30. Never attempt to mix gasses in a cylinder or fill an empty one from another (particularly oxygen cylinders). Mixture of incompatible gasses and/or heat caused by recompression of the gas or gasses may result in ignition and fire. Only the owner of a cylinder may mix gasses in it.
31. When a gas cylinder is ready for return to the supplier, be certain the cylinder valve is closed to prevent internal contamination and the shipping cap is in place to protect the cylinder valve. Identify empty cylinders.
32. Never use oxygen or other gasses as a substitute for compressed air in operation of air-operated tools, blowing off parts, or for ventilation purposes. The only exception to this rule is where oxygen is used to blow out port passages and talcum powder or dust from welding hoses when setting up new or old “dusty” equipment.
33. Do not attempt to do your own repair on welding equipment. Equipment that is improperly repaired can cause leaks and other hazardous conditions. Repairs must be performed by qualified repair personnel.
34. Never repair welding hose with tape. Use of tape and many hose splicers can reduce the pressure to the torch and can cause hazardous conditions. Welding hose must meet the specifications of the Compressed Gas Association.
35. Use the shortest length of hose possible. Longer hoses require higher gas pressures and can be hard to handle.
36. Never use oil or grease on any part of welding or cutting equipment and never let it come into contact with oil or grease. This includes gas cylinders, work bench, regulators, torches, tips, threads on bottles, and clothes that are worn, such as jackets, gloves, and aprons. Oxygen and oil or grease can cause explosions and fire.

37. Never use a hammer on the valve cover caps to loosen them. Use a piece of wood to soften the impact and prevent sparks and damage to the cap.
38. When moving gas cylinders always roll them on their bottom edges or in a cart designed for their movement. Sliding or dragging them or rolling causes excessive wear and may weaken their walls by metal erosion. Slings and electromagnets are not authorized when transporting cylinders.
39. Never use cylinders as rollers to move material. Do not let them bump into each other or let them fall.
40. Fuel gas and liquefied fuels must be stored and shipped valve end up.
41. Do not hammer on any cylinder. Do not tamper with the relief valves. If you have trouble, contact the supplier for assistance.
42. Suitable eye protection must be worn for all welding and cutting operations.
43. Cylinders must be secured. Valves must be closed when unattended and caps must be on the cylinders when the regulators are not on the cylinders.
44. Cylinders must be upright when they are transported in powered vehicles.
45. All cylinders with a water weight of over 30 lbs. must have caps or other protection.
46. All fuel gases must be used through a regulator on cylinder or manifold.
47. Compressed gas cylinders must be upright except for short periods for transportation.
48. Repair work on gauges and regulators must be done by qualified personnel.
49. Only 4 inches of hose per foot may be covered with tape. Defective hoses must be removed from service.
50. Oxygen must not be used for ventilation.
51. Oxygen regulators must be marked "Use No Oil". Regulators and fittings must meet the specifications of the Compressed Gas Association.
52. Union nuts on regulators must be checked for damage.
53. Before removing a regulator, shut off cylinder valve and release gas from regulator. Equipment must be used only as approved by the manufacturer.
54. Caps must be on cylinders unless they are transported on a special carrier.
55. Hot warnings on materials are required.

56. Fire is the biggest hazard in welding. The area should be cleared for a radius of 35 feet. Fire shields should be used. The area should be monitored for 30 minutes or more after end of work to ensure there is no delayed ignition.
57. Proper personal protective equipment must be worn by all welders and assisting personnel.
58. All welding personnel should be advised of the hazards from heating zinc, lead, cadmium, and any other substances that could cause health problems from the welding activity.

*(The following apply to arc welding)*

59. Chains, wire ropes, hoists, and elevators must not be used to carry welding current.
60. Leather capes should be used for overhead welding.
61. The neck and ears must be protected from the arc.
62. Conduits with electrical conductors in them must not be used to complete a welding circuit.
63. Welding shields must be used to protect other workers from injurious light rays.
64. Welding leads must be inspected regularly for damage to insulation. Only proper splicing will be authorized. There should be no splices in stinger lead within 10 feet of the stinger and the leads should never be wrapped around the body.

# Hazard Communication Program

## Purpose:

The purpose of the Hazard Communication Program is to ensure that the hazards of all chemicals produced or imported by chemical manufacturers or importers are evaluated. Information concerning the hazards must be transmitted to affected employers and employees before they use the products.

## Procedure:

- Inventory Lists – Know the hazardous chemicals in your workplace that are a potential physical or health hazard. Make an inventory list of these hazardous chemicals; this list must be a part of your written program.
- MSDS – Make sure there is a material safety data sheet (MSDS) for each chemical and that the inventory list and labeling system reference the corresponding MSDS for each chemical.
- Labeling System – Each container entering the workplace must be properly labeled with the identity of the product, the hazardous warning, and the name and address of the manufacturer.
- Written Program – Develop, implement, and maintain a comprehensive written hazard communication program at the workplace that includes provisions for container labeling, material safety data sheets, and an employee training program (**see the editable sample in the Appendix, page H1-2**).

Employees must be made aware of where hazardous chemicals are used in their work areas. They must also be informed of the requirements of the Hazard Communication Standard, the availability and location of the written program, the list of hazardous chemicals, and the material safety data sheets.

The code specifically requires employers to train employees in the protective practices implemented in their workplace, the labeling system used, how to obtain and use MSDSs, the physical and health hazards of the chemicals and the recognition, avoidance and prevention of accidental entrance of hazardous chemicals into the work environment.

# Respirator Program

## **Purpose:**

The purpose of the Respirator Program is to ensure that all employees are protected from exposure to respiratory hazards. Engineering controls such as ventilation and substitution of less toxic materials are the first line of defense. However, engineering controls are not feasible for some operations or do not completely control the identified hazards. In these situations, respirators and other protective equipment must be used. Respirators are also utilized for protection during emergencies.

## **Procedure:**

This program applies to all employees who are required to wear respirators during normal work operations and during certain non-routine or emergency operations. Employees participating in the respiratory protection program do so at no cost to them. The expense associated with medical evaluations, training, and respiratory protection equipment will be borne by the company.

Employees who voluntarily choose to use a cartridge style respirator when the respirator is not required are subject to the medical evaluation, cleaning, maintenance, and storage elements only of this program. These individuals will also receive training covering proper procedures for cleaning, maintenance and storage of their respirators.

# Hearing Conservation Program

## **Purpose:**

The purpose of the Hearing Conservation Program is to ensure that all employees are protected from exposure to noise hazards. Employers whose workers are exposed to high noise levels must have an active program for protecting their employees' hearing.

## **Procedure:**

An effective hearing conservation program should first assess companywide noise exposures in order to identify any employee or group of employees exposed to noise. Noise is measured with a sound level meter or noise dosimeters, which measure average noise levels over time. Employees who are exposed to noise at or above an eight-hour time-weighted average of 85 dB (decibels) must be covered under a hearing conservation program. For these employees, the employer must develop, implement, and maintain (at no cost to the employees) a program consisting of:

1. Mandatory audiometric testing
2. Making hearing protectors available and ensuring their use.
3. Comprehensive training explaining hearing loss, hearing protective devices, and the employer's hearing conservation program.
4. Warning signs for high noise areas (115 DBA or higher).
5. Keeping accurate records.
6. Ensuring employee access to their records.

Additionally, the employer must post a copy of the hearing conservation standard or post a notice to affected employees or their representatives that a copy of the standard is available at the workplace for their review.

If you need assistance in noise measurements, you can contact the Consultation Section of the Department of Labor and Industries; the industrial hygiene consultants can help you free of charge.

# Handling Heat Stress

- Supply adequate water and encourage workers who work in hot weather to drink regularly, even when not thirsty. A small amount of water every 15 minutes is recommended rather than a large amount after hours of sweating.
- Learn the signs and symptoms of heat-related illness.
- Inform workers they should avoid alcohol or drinks with caffeine before or during work in hot weather.
- Try to do the heaviest work during the cooler parts of the day.
- Adjusting to work in heat takes time. Allow workers to acclimatize. Start slower and work up to your normal pace.
- Wear lightweight, loose-fitting, light-colored, breathable (e.g. cotton) clothing and a hat.
- Allow workers to take regular breaks from the sun. Loosen or remove clothing that restricts cooling.
- Watch workers for symptoms of heat-related illness. This is especially important for non-acclimatized workers, those returning from vacations and for all workers during heat-wave events.
- If exertion causes someone's heart to pound or makes them gasp for breath, become lightheaded, confused, weak or faint, they should STOP all activity and get into a cool area or at least into the shade, and rest.

The two major heat-related illnesses are heat exhaustion and heat stroke. Heat exhaustion, if untreated, may progress to deadly heat stroke. **Heat stroke is very dangerous and frequently fatal.** If workers show symptoms, *always take this seriously* and have them take a break and cool down before returning to work. *Stay with them.* If symptoms worsen or the worker does not recover within about 15 minutes, call 911 and have them transported and medically evaluated. *Do not delay transport.*

## Heat Stroke or Heat Exhaustion?

### How do you tell the difference?

The telling difference is mental confusion or disorientation in ALL heat stroke victims

You can ask these 3 questions: What is your name? What day is this? Where are we?

If a worker can't answer these questions, assume it is heat stroke.

## What are the symptoms of heat exhaustion and heat stroke?

Heat Exhaustion	Heat Stroke
<ul style="list-style-type: none"> <li>• Heavy sweating</li> <li>• Exhaustion, weakness</li> <li>• Fainting / Lightheadedness</li> <li>• Paleness</li> <li>• Headache</li> <li>• Clumsiness, dizziness</li> <li>• Nausea or vomiting</li> <li>• Irritability</li> </ul>	<ul style="list-style-type: none"> <li>• Sweating may or may not be present</li> <li>• Red or flushed, hot dry skin</li> <li>• Any symptom of heat exhaustion but more severe</li> <li>• Confusion / Bizarre behavior</li> <li>• Convulsions before or during cooling</li> <li>• Collapse</li> <li>• Panting/rapid breathing</li> <li>• Rapid, weak pulse</li> <li>• Note: May resemble a heart attack</li> </ul>

## What do you do if someone is suffering from heat exhaustion or heat stroke?

Heat Exhaustion	Heat Stroke (medical emergency)
<ul style="list-style-type: none"> <li>• Move the worker to a cool, shaded area to rest; <b>do not leave them alone.</b></li> <li>• Loosen and remove heavy clothing that restricts evaporative cooling.</li> <li>• Give cool water to drink, about a cup every 15 minutes.</li> <li>• Fan the worker, spray with cool water, or apply a wet cloth to their skin to increase evaporative cooling.</li> <li>• Recovery should be rapid. Call 911 if they do not feel better in a few minutes.</li> <li>• Do not further expose the worker to heat that day. Have them rest and continue to drink cool water or electrolyte drinks.</li> </ul>	<ul style="list-style-type: none"> <li>• Get medical help immediately, call 911 and transport as soon as possible.</li> <li>• Move the worker to a cool, shaded area and remove clothing that restricts cooling.</li> <li>• Seconds count – Cool the worker rapidly using whatever methods you can. For example, immerse the worker in a tub of cool water; place the worker in a cool shower; spray the worker with cool water from a garden hose; sponge the worker with cool water; or, if the humidity is low, wrap the worker in a cool, wet sheet and fan them vigorously. Continue cooling until medical help arrives.</li> <li>• If emergency medical personnel are delayed, call the hospital emergency room for further instruction.</li> <li>• Do not give the worker water to drink until instructed by medical personnel.</li> </ul>



# Temperature Trigger Point

From the months of May to September when the outdoor temperature is at or above 89 degrees the company will provide enough drinking water and the opportunity for each employee to consume at least one quart per hour.

## **Training:**

### Employee Training:

Training on the following topics must be provided to all employees who may be exposed to outdoor heat at or above the temperature trigger point.

1. The environmental factors that contribute to the risk of heat related illness.
2. General awareness of personal factors that may increase susceptibility to heat-related illness including, but not limited to , an individual's age, degree of acclimatization, medical conditions, drinking water consumption, alcohol use, caffeine use, nicotine use, and use of medications that affect the body's responses to heat.
3. The importance of frequent consumption of small quantities of drinking water or other acceptable beverages.
4. The importance of acclimatization
5. The different types of heat-related illness, the signs and symptoms of heat-related illness.
6. The importance of immediately reporting signs or symptoms of heat-related illness in either themselves or in co-workers to the person in charge and the procedures the employee must follow including appropriate emergency response procedures.

### Supervisor Training:

Prior to supervising employees working in outdoor environments with heat exposure at or above the temperature trigger point supervisors will be trained on the following topics.

1. The information required to be provided to employee listed in the section above titled "Employee Training."
2. The procedures the supervisor must follow if an employee exhibits signs or symptoms consistent with possible heat-related illness, including appropriate emergency response procedures.
3. Procedures for moving or transporting an employee to a place where the employee can be reached by an emergency medical service provider, if necessary.

# CONFINED SPACES

Fatalities and injuries constantly occur among construction workers who, during the course of their jobs, are required to enter confined spaces. In some circumstances, these workers are exposed to multiple hazards, any of which may cause bodily injury, illness, or death. Workers are injured and killed from a variety of atmospheric factors and physical agents.

The construction standard (WAC 296-155) requires that companies follow WAC 296-809, when working in confined spaces. There is an exception for work on sewer systems under construction.

Employers must consult with employees and their authorized representatives on the development and implementation of all aspects of the permit required confined space entry program required by the Confined Space Standard, (WAC 296-809).

All information required by the Confined Space Standard must be available to employees affected by the standard (or their authorized representatives).

You must first determine if you have any confined space situations. A confined space has three characteristics; it must have **all three** characteristics to be considered a confined space:

1. Large enough to get your body entirely inside to do your work
2. Not designed or intended for continuous occupation
3. Restricted entry or exit

If you do have any confined spaces, you must not enter them until you have carefully evaluated the hazards inside to determine what type of entry procedure may be used for each confined space you have:

- Non-permit-required confined space (NPRCS)
- Permit-required confined space (PRCS)
- Alternate Entry

# Fire Safety

## What should you do if you discover a fire?

### Step One:

- Pull the nearest fire alarm or tell a co-worker to pull it
- Call 911
- Follow R.A.C.E.
  - Remove or rescue anyone from the immediate danger area
  - Activate the building fire alarm and report the fire
  - Confine the fire by closing all doors
  - Evacuate the building
- Be prepared to escape by:
  - Knowing at least two ways out of every room, space, and work area.
  - Noting the emergency exits in your work location.
  - Knowing the emergency meeting locations outside and away from the building.
  - If your clothes catch fire, remember to stop, drop and roll.

### Step Two – Decide:

- Should you Exit the building?
- Or should you use a fire extinguisher?
  - If you hear a fire alarm:
    - Immediately evacuate the building
    - Go to the prearranged meeting location
    - Do not try to put out the fire with an extinguisher, unless you have been trained and expected to use an extinguisher
    - Wait for the “ALL CLEAR” signal before you re-enter the building.
  - You MUST exit the building when:
    - You have been told by your management to exit when you hear the fire alarm.
  - You MUST exit the building even if:
    - There are fire extinguishers hanging on the walls or accessible to you.
  - The only exception to leaving the building is when you have been..:
    - Specifically told you can do something other than evacuate the building
    - Specifically trained and expected to use a fire extinguisher.
      - You can use a fire extinguisher only if you:
        - Have been trained initially on when and how to use a fire extinguisher.
        - Receive refresher annual training.
- Using a fire Extinguisher:
  - Before using a fire extinguisher, be sure that:
    - The fire is small and not spreading rapidly!
    - You have the proper fire extinguisher to put out what is burning (paper, oil, electrical).
    - The fire won't block your exit if you can't extinguish it or control it.
    - You know your fire extinguisher works.
  - Choosing the proper extinguisher

- For ordinary fires involving solid such as wood, paper, and cloth; you can use a water or dry chemical extinguisher with a label that says Class A or Combination A, B & C.
    - For fires involving flammable liquids, or electrical equipment, choose a dry chemical extinguisher with a label that says Combination B & C or A, B & C or a Carbon Dioxide extinguisher.
    - Electrical fires will mostly be extinguished if the power is turned off first.
  - Read the labels on all the various types of fire extinguishers near your work area
    - Never use water on a fire unless you know what is burning.
    - Water conducts electricity which could spread problems and cause more shorting in the equipment.
    - Water will also carry burning oil, gas and other petroleum products in to new areas to ignite.
  - A fire extinguisher should only be used to fight a fire when:
    - The fire department has first been notified.
    - There is a clear exit behind the person using the fire extinguisher.
    - The fire is small and contained (Like in a wastepaper basket).
    - The fire is not spreading rapidly.
  - How to use a fire extinguisher safely:
    - Always stand with an exit at your back.
    - Stand several feet back and away from the fire, moving closer once the fire start to diminish.
    - Use a slow sweeping motion and aim the fire extinguisher nozzle at the base of the fire.
    - If possible, use a “buddy system” to have someone back you up or to call for help if something goes wrong.
    - After putting out the fire be sure to watch the area for a while to unsure the fire does not re-ignite.
  - Use the “P.A.S.S.” system:
    - Pull the pin.
    - Aim at the base of the fire from about 8 feet away.
    - Squeeze the handle
    - Sweep from side to side at the base of the fire until it is out.
- Once the fire is out:
  - If the fire goes out:
    - Stay near, it might flare up
    - If so, put it out again or evacuate.
  - If the fire doesn’t go out:
    - Evacuate
  - Most extinguishers only last 10 to 18 seconds.

# Powder Actuated Tools

## Basic General Safety Rules:

Only qualified workers trained and have on their person a qualified operator card for operating powder activated tools may use a powder actuated tools. As per WAC 296-24-66321.

- Inspect the tool before each use.
- Test the tool before each use.
- Always follow the manufacturer's specifications for operation.
- Always study and determine the proper charge.
- Know what is on the other side of the work surface.
- Know what is on the work surface.
- Don't allow other workers on the other side of the work surface.
- Know what can't be shot into, such as cast iron, high carbon steel, armor plate, glazed brick, glass, or tile. See manufacturer's instructions.
- Load just prior to shooting.
- Always wear eye protection.
- Store the tools, charges and studs safely and securely.
- Don't try to fix jams and misfires.

# Electrical Safety

## General Electrical Safety

- Electricity – The Dangers:
  - About 5 workers are electrocuted every week
  - Causes 12% of young worker workplace deaths
  - Takes very little electricity to cause harm
  - Significant risk of causing fires
- Primary Causes for Electrocution:
  - Contact with overhead power lines
  - Contact with live circuits in panels
  - Poorly maintained cords and tools
  - Lightning strikes
- Four Main Types of Electrical Injuries
  - Shock
  - Burns
  - Falls due to contact with electricity
  - Electrocution (death)
- Working with Electricity at Heights
  - Many falls are caused by accidental contact with electricity
  - Be aware! Maintain safe working distance
- Electrical Shock
  - An electrical shock is received when electrical current passes through the body.
  - You will get an electrical shock if a part of your body completes an electrical circuit by:
    - Touching a live wire and an electrical ground
    - Touching a live wire and another wire at a different voltage
- Shock Severity
  - Low Voltage does not mean Low Hazard
    - Severity of the shock depends on the:
      - Path of the current flowing through the body
      - Amount of the current flowing through the body (amps)
      - Duration of the current flowing through the body
- Burns
  - Most Common shock-related injury
  - Occur when you touch electrical wiring or equipment that is improperly used or maintained
  - Typically occurs on the hands
  - Very serious injury that needs immediate attention

## Hazards:

- Defective Cords & Wires
  - Plastic or rubber covering missing
  - Damaged extension cords & tools
- Damaged Cords
  - Cords can be damaged by:
    - Aging

- Door or window edges
  - Staples or fastenings
  - Abrasions from adjacent materials
  - Activity in the area
- Improper use can cause shocks, burns, or fires
- Power Tools Must:
  - Have a three-wire cord with ground plugged into a grounded receptacle, or
  - Be double insulated, or
  - Be powered by a low-voltage isolation transformer

#### Preventing Electrical Hazards:

- Tools
  - Inspect tools before use
  - Correctly use the right tool for the task
  - Protect your tools
  - Use double insulated tools
- Clues that Electrical Hazards Exist
  - Tripped circuit breakers or blown fuses
  - Warm tools, wires, cords, connections, or junction boxes
  - GFCI (Ground Fault Circuit Interrupter) shuts off a circuit
  - Worn or frayed insulation around wire or connection
- Planning
  - Plan your work with others
  - Plan to avoid falls
  - Plan to lockout and tagout equipment
  - Remove jewelry
  - Avoid wet conditions and overhead power lines
- Avoid Wet Conditions
  - If you touch a live wire or other electrical component while standing in even a small puddle of water you'll get a shock.
  - Damaged insulation, equipment, or tools can expose you to live electrical parts.
  - Improperly grounded metal switch plates & ceiling lights are especially hazardous in wet conditions.
  - Wet clothing high humidity, and perspiration increase your chances of being electrocuted.
  - Avoid working in wet conditions, whenever possible.
  - Use approved electrical equipment for wet conditions.
  - Do not stand in wet areas while operating electrical equipment.
- PPE
  - Proper foot protection (not tennis shoes)
  - Rubber insulating gloves, hoods, sleeves, matting, and blankets
  - Hard hat (insulated – nonconductive)
- Proper Wiring and Connectors
  - Use and test GFCI's
  - Check switched and insulation
  - Use three prong plugs
  - Use extension cords only when necessary & assure in proper condition and right type for the job

- Use correct connectors

What if someone gets electrocuted?

- Look first, but don't touch
- Turn off the source of the electricity if possible. If not, move the source away from you and the affected person using a non-conduction object.
- Get Emergency Medical Services there.
- Try not to touch the burns.
- If qualified, start basic first aid and CPR as necessary until EMS arrives.



# APPENDIXES

## Job Orientation Guide

Company: **Pacific One Construction**  
 Trainer:  
 Date

Employee:  
 Hire Date:  
 Position:

This checklist is a guideline for conducting employee safety orientations for employees new to *(Customize by adding the name of your company)*. Once completed and signed by both supervisor and employee, it serves as documentation that orientation has taken place.

	Date	Initials
1. Explain the company safety program, including:		
Orientation	_____	_____
On-the-job training	_____	_____
Safety meetings	_____	_____
Incident investigation	_____	_____
Disciplinary action	_____	_____
2. Use and care of personal protective equipment (Hard hat, fall protection, eye protection, etc.)	_____	_____
3. Line of communication and responsibility for immediately reporting injuries.		
A. When to report an injury	_____	_____
B. How to report an injury	_____	_____
C. Who to report an injury to	_____	_____
D. Filling out incident report forms	_____	_____
4. General overview of operation, procedures, methods and hazards as they relate to the specific job	_____	_____
5. Pertinent safety rules of the company and WISHA	_____	_____
6. First aid supplies, equipment and training		
A. Obtaining treatment	_____	_____
B. Location of Facilities	_____	_____
C. Location and names of First-aid trained personnel	_____	_____
7. Emergency plan		
A. Exit location and evacuation routes	_____	_____
B. Use of firefighting equipment (extinguishers, hose)	_____	_____
C. Specific procedures (medical, chemical, etc.)	_____	_____
8. Vehicle safety	_____	_____
9. Personal work habits		
A. Serious consequences of horseplay	_____	_____
B. Fighting	_____	_____
C. Inattention	_____	_____
D. Smoking policy	_____	_____
E. Good housekeeping practices	_____	_____
F. Proper lifting techniques	_____	_____

NOTE TO EMPLOYEES: Do not sign unless ALL items are covered and ALL questions are satisfactorily answered.

The signatures below document that the appropriate elements have been discussed to the satisfaction of both parties, and that both the supervisor and the employee accept responsibility for maintaining a safe and healthful work environment.

Date: \_\_\_\_\_ Supervisor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_ Employee's Signature: \_\_\_\_\_

## Employee's Report of Injury Form

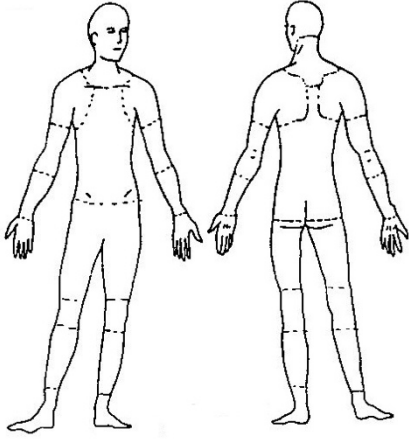
**Instructions:** Your employees may use this form to report all work related injuries, illnesses, or “near miss” events (which could have caused an injury or illness) – *no matter how minor*. This helps you to identify and correct hazards before they cause serious injuries. This form should be completed by employees as soon as possible and given to a supervisor for further action.

I am reporting a work related: <input type="checkbox"/> Injury <input type="checkbox"/> Illness <input type="checkbox"/> Near miss	
Your Name:	
Job title:	
Supervisor:	
Have you told your supervisor about this injury/near miss? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date of injury/near miss:	Time of injury/near miss:
Names of witnesses (if any):	
Where, exactly, did it happen?	
What were you doing at the time?	
Describe step by step what led up to the injury/near miss. (continue on the back if necessary):	
What could have been done to prevent this injury/near miss?	
What parts of your body were injured? If a near miss, how could you have been hurt?	
Did you see a doctor about this injury/illness? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, whom did you see?	Doctor's phone number:
Date:	Time:
Has this part of your body been injured before? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, when?	Employer:
Your signature (optional):	Date:

## Incident Investigation Report Form

**Instructions:** Complete this form as soon as possible after an incident that results in serious injury or illness.  
 (Optional: Use to investigate a minor injury or near miss that *could have resulted in a serious injury or illness.*)

This is a report of a: <input type="checkbox"/> Death <input type="checkbox"/> Lost Time <input type="checkbox"/> Dr. Visit Only <input type="checkbox"/> First Aid Only <input type="checkbox"/> Near Miss	
Date of incident:	This report is made by: <input type="checkbox"/> Employee <input type="checkbox"/> Supervisor <input type="checkbox"/> Team <input type="checkbox"/> Final Report

Step 1: Injured employee (complete this part for each injured employee)		
Name:	Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female	Age:
Department:	Job title at time of incident:	
Part of body affected: (shade all that apply)  	Nature of injury: (most serious one) <input type="checkbox"/> Abrasion, scrapes <input type="checkbox"/> Amputation <input type="checkbox"/> Broken bone <input type="checkbox"/> Bruise <input type="checkbox"/> Burn (heat) <input type="checkbox"/> Burn (chemical) <input type="checkbox"/> Concussion (to the head) <input type="checkbox"/> Crushing Injury <input type="checkbox"/> Cut, laceration, puncture <input type="checkbox"/> Hernia <input type="checkbox"/> Illness <input type="checkbox"/> Sprain, strain <input type="checkbox"/> Damage to a body system: <input type="checkbox"/> Other _____	This employee works: <input type="checkbox"/> Regular full time <input type="checkbox"/> Regular part time <input type="checkbox"/> Seasonal <input type="checkbox"/> Temporary  Months with this employer:  Months doing this job:   (e.g.: nervous, respiratory, or circulatory systems)

Step 2: Describe the incident	
Exact location of the incident:	Exact time:
What part of employee's workday? <input type="checkbox"/> Entering or leaving work <input type="checkbox"/> Doing normal work activities <input type="checkbox"/> During meal period <input type="checkbox"/> During break <input type="checkbox"/> Working overtime <input type="checkbox"/> Other	
Names of witnesses (if any):	

Number of attachments:	Written witness statements:	Photographs:	Maps / drawings:
What personal protective equipment was being used (if any)?			
Describe, step-by-step the events that led up to the injury. Include names of any machines, parts, objects, tools, materials and other important details.			
Description continued on attached sheets: <input type="checkbox"/>			

<b>Step 3: Why did the incident happen?</b>	
Unsafe workplace conditions: (Check all that apply) <input type="checkbox"/> Inadequate guard <input type="checkbox"/> Unguarded hazard <input type="checkbox"/> Safety device is defective <input type="checkbox"/> Tool or equipment defective <input type="checkbox"/> Workstation layout is hazardous <input type="checkbox"/> Unsafe lighting <input type="checkbox"/> Unsafe ventilation <input type="checkbox"/> Lack of needed personal protective equipment <input type="checkbox"/> Lack of appropriate equipment / tools <input type="checkbox"/> Unsafe clothing <input type="checkbox"/> No training or insufficient training <input type="checkbox"/> Other: _____	Unsafe acts by people: (Check all that apply) <input type="checkbox"/> Operating without permission <input type="checkbox"/> Operating at unsafe speed <input type="checkbox"/> Servicing equipment that has power to it <input type="checkbox"/> Making a safety device inoperative <input type="checkbox"/> Using defective equipment <input type="checkbox"/> Using equipment in an unapproved way <input type="checkbox"/> Unsafe lifting by hand <input type="checkbox"/> Taking an unsafe position or posture <input type="checkbox"/> Distraction, teasing, horseplay <input type="checkbox"/> Failure to wear personal protective equipment <input type="checkbox"/> Failure to use the available equipment / tools <input type="checkbox"/> Other: _____
Why did the unsafe conditions exist?	
Why did the unsafe acts occur?	
Is there a reward (such as “the job can be done more quickly”, or “the product is less likely to be damaged”) that may have encouraged the unsafe conditions or acts? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span> If yes, describe:	
Were the unsafe acts or conditions reported prior to the incident? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>	
Have there been similar incidents or near misses prior to this one? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>	

**Step 4: How can future incidents be prevented?**

**What changes do you suggest to prevent this injury/near miss from happening again?**

- Stop this activity       Guard the hazard       Train the employee(s)       Train the supervisor(s)
- Redesign task steps       Redesign work station       Write a new policy/rule       Enforce existing policy
- Routinely inspect for the hazard       Personal Protective Equipment       Other: \_\_\_\_\_

What should be (or has been) done to carry out the suggestion(s) checked above?

Description continued on attached sheets:

**Step 5: Who completed and reviewed this form? (Please Print)**

Written by:	Title:
Department:	Date:
Names of investigation team members:	
Reviewed by:	Title:
	Date:



# FALL PROTECTION WORK PLAN

## JOB INFORMATION

Job Name: (insert job name)  
 Job Address: (street address)  
 General Contractor: (name)  
 Job Foreman: NA

City: (city)  
 Date:  
 Jobsite Phone: (phone number)

## IDENTIFIED FALL HAZARDS AND PROTECTION SELECTION

√	<b>Hazard Type</b>	<b>General Location(s)</b>	<b>Fall Protection Method</b>	<b>Overhead Protection Method</b>
	Roof > 4/12 Pitch	N/A	N/A	N/A
	Roof < 4/12 Pitch	N/A	N/A	N/A
	Skylight Openings	N/A	N/A	N/A
	Roof Openings	N/A	N/A	N/A
	Floor Openings	N/A	N/A	N/A
	Window Openings	Perimeter	Safety Rails	N/A
	Scaffolding	Perimeter	Guardrails	Hardhats
	Decks	N/A	N/A	N/A
	Balconies	N/A	N/A	N/A
	Leading Edge Work	N/A	N/A	N/A
	Mobile Lift Work	N/A	N/A	N/A
	Excavation Edges	N/A	N/A	N/A
	Grade Drop-Offs	N/A	N/A	N/A
	Other _____			



## ASSEMBLY, MAINTENANCE, INSPECTION, DISASSEMBLY PROCEDURE

Assembly and disassembly of all equipment will be done according to manufacturers' recommended procedures.

---

Specific types of equipment on the job are:

---

A visual inspection of all safety equipment will be done daily or before each use, as stated in the Employee Training Packet. Any defective equipment will be tagged and removed from use immediately. The manufacturer's recommendations for maintenance and inspection will be followed.

## HANDLING, STORAGE & SECURING OF TOOLS AND MATERIAL

Toe boards will be installed on all scaffolding to prevent tools and equipment from falling from scaffolding.

## OVERHEAD PROTECTION

Hard hats are required on all job sites with the exception of those that have no exposure to overhead hazards. Warning signs will be posted to caution of existing hazards whenever they are present. In some cases, debris nets may be used if a condition warrants additional protection.

Toe boards (at least 4 inches in height) will be installed along the edge of scaffolding and walking surfaces for a distance sufficient to protect employees below. Where tools, equipment or materials are piled higher than the top of the toe board, paneling or screening will be erected to protect employees below.

# EMERGENCIES AND INJURIES

First Aid Trained Employee(s) On Site:

Name: Mike Metcalf

Title: Supervisor

Name: Matt Hicks

Title: Supervisor

First Aid Kit Location(s): Job Box

Nearest Medical Facility: (name of facility)  
(street address)  
(city state zip)

Location of Nearest Telephone: Supervisor's Cell Phones, Job Shack

If a crew member is injured at elevation, the supervisor will evaluate the employee's condition and administer first aid. Emergency services will be called as needed. If an injured employee can't return to ground level, the employee will be brought down to a lower level by emergency services. The following equipment is available on site to facilitate lowering the injured worker:

---

## **Employee Training:**

All employees must be instructed on the provisions of this plan and have been trained in the proper use of the fall protection equipment involved. By signing this document, the employees acknowledge that they understand the plan and have been trained in the use of the equipment.

Name:	Signature:	Date:

The competent person's signature verifies that the hazard analysis has been done, the employees informed of the plan's provisions and that employees have received training in the fall protection systems in use:

Name:	Signature:	Date:

# FALL PROTECTION TRAINING GUIDE FOR EMPLOYEES

## Safety Belt, Harness and Lanyard Inspection and Maintenance

### I. ANSI Classification:

- Class I Body belts – used to restrain a person from falling.
- Class II Chest harness – used for restraint purposes (NOT for vertical free fall hazards).
- Class III Full body harness – used for fall arrest purposes. Can also be used for fall restraint.
- Class IV Suspension/position belt – used to suspend or support the worker. If a fall arrest hazard exists this must be supplemented by use of a safety harness.

### II. Inspection Guidelines:

To maintain their service life and high performance, all belts and harnesses must be inspected prior to each use for mildew, wear, damage and other deteriorations. Visual inspection before each use is just common sense. Periodic tests by a trained inspector for wear, damage or corrosion should be part of the safety program. Inspect your equipment daily and replace it if any of the defective conditions in this manual are found.

#### **Belt inspection:**

1. Beginning at one end, holding the body side of the belt toward you, grasp the belt with your hands six to eight inches apart. Bend the belt in an inverted “U”. The resulting surface tension makes damaged fibers or cuts easier to see.
2. Follow this procedure the entire length of the belt or harness. Watch for frayed edges, broken fibers, pulled stitches, cuts, or chemical damage.
3. Special attention should be given to the attachment of buckles and Dee Rings to webbing. Note any unusual wear, frayed or cut fibers, or distortion of the buckles or Dees.
4. Inspect for frayed or broken strands. Broken webbing strands generally appear as tufts on the webbing surface. Any broken, cut, or burned stitches will be readily seen.
5. Rivets should be tight and immovable with fingers. Body side rivet base and outside rivet burr should be flat against the material. Bent rivets will fail under stress.

Especially note condition of Dee Ring rivets and Dee Ring metal wear pads (if any). Discolored, pitted or cracked rivets indicate chemical corrosion.

6. The tongue, or billet, of the belt receives heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted, or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes, causing slippage of the buckle tongue.

# FALL PROTECTION TRAINING GUIDE FOR EMPLOYEES

## Safety Belt, Harness and Lanyard Inspection and Maintenance cont'd

### 7. Tongue Buckle:

Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. Roller should turn freely on frame. Check for distortion or sharp edges.

### 8. Friction Buckle:

Inspect the buckle for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment to points of the center bar.

### 9. Sliding Bar Buckle:

Inspect buckle frame and sliding bar for cracks, distortions, or sharp edges.

Sliding bar should move freely. Knurled edge will slip if worn smooth. Pay special attention to corners and ends of sliding bar.

## **Lanyard inspection:**

When inspecting lanyards, begin at one end and work to the opposite end. Slowly rotate the lanyard so that the entire circumference is checked. Spliced ends require particular attention. Hardware should be examined under procedures also detailed below, i.e., Snaps, Dee Ring, and Thimbles.

### 1. Steel

While rotating the steel lanyard, watch for cuts, frayed areas, or unusual wearing patterns on the wire. Broken strands will separate from the body of the lanyards.

### 2. Webbing

While bending webbing over a pipe or mandrel, observe each side of the webbed lanyard. This will reveal any cuts or breaks. Swelling, discolorations, cracks, and charring are obvious signs of chemical or heat damage. Observe closely for any breaks in stitching.

### 3. Rope

Rotation of the rope lanyard while inspecting from end to end will bring to light any fuzzy, worn, broken, or cut fibers. Weakened areas from extreme loads will appear as a noticeable change in original diameter. The rope diameter should be uniform throughout, following a short break-in-period.

# FALL PROTECTION TRAINING GUIDE FOR EMPLOYEES

## Fall Protection System Considerations

Below are guidelines for worker protection where fall arrest or fall restraint systems are used. Some of this material may be suitable for adding to the written fall protection work plan specified in WAC 296-155-24505. Also reference WAC 296-24-88050, Appendix C, Personal Fall Arrest System.

### 1. Selection and use considerations:

The kind of personal fall arrest system selected should match the particular work situation, and any possible free fall distance should be kept to a minimum. Consideration should be given to the particular work environment. For example, the presence of acids, dirt, moisture, oil, grease, etc., and their effect on the system, should be evaluated. Hot or cold environments may also have an adverse effect on the system. Wire rope should not be used where an electrical hazard is anticipated. As required by the standard, the employer must plan to have means available to promptly rescue an employee should a fall occur, since the suspended employee may not be able to reach a work level independently.

Where lanyards, connectors, and lifelines are subject to damage by work operations such as welding, chemical cleaning, and sandblasting, the component should be protected, or other securing systems should be used. The employer should fully evaluate the work conditions and environment (including seasonal weather changes) before selecting the appropriate personal fall protection system. Once in use, the system's effectiveness should be monitored. In some cases, a program for cleaning and maintenance of the system may be necessary.

### 2. Testing considerations:

Before purchasing or putting into use a personal fall arrest system, an employer should obtain from the supplier information about the system based on its performance during testing so that the employer can know if the system meets this standard. Testing should be done using recognized test methods. WAC 296-24-88050, Appendix C, Part II, contains test methods recognized for evaluating the performance of fall arrest systems. Not all systems may need to be individually tested; the performance of some systems may be based on data and calculations derived from testing of similar systems, provided that enough information is available to demonstrate similarity of function and design.

### 3. Component compatibility considerations:

Ideally, a personal fall arrest system is designed, tested, and supplied as a complete system. However, it is common practice for lanyards, connectors, lifelines, deceleration devices, and body harnesses to be interchanged since some components wear out before others. The employer and employee should realize that not all components are interchangeable. For instance, a lanyard should not be connected between a body harness and a deceleration device of the self-retracting type since this can result in additional free fall for which the system was not designed. Any substitution or change to a personal fall arrest system should be fully evaluated or tested by a competent person to determine that it meets the standard, before the modified system is put in use.

# FALL PROTECTION TRAINING GUIDE FOR EMPLOYEES

## Fall Protection System Considerations cont'd

### 4. Employee training considerations:

Thorough employee training in the selection and use of personal fall arrest systems is imperative. As stated in the standard, before the equipment is used, employees must be trained in the safe use of the system. This should include the following: Application limits; proper anchoring and tie-off techniques; estimation of free fall distance, including determination of deceleration distance, and total fall distance to prevent striking a lower level; methods of use; and inspection and storage of the system. Careless or improper use of the equipment can result in serious injury or death. Employers and employees should become familiar with this material, as well as manufacturer's recommendations, before a system is used. Of uppermost importance is the reduction in strength caused by certain tie-offs (such as using knots, tying around sharp edges, etc.) and maximum permitted free fall distance. Also, to be stressed are the importance of inspections prior to use, the limitations of the equipment, and unique conditions at the worksite which may be important in determining the type of system to use.

### 5. Instruction considerations:

Employers should obtain comprehensive instructions from the supplier as to the system's proper use and application, including, where applicable:

- a. The force measured during the sample force test;
- b. The maximum elongation measured for lanyards during the force test;
- c. The deceleration distance measured for deceleration devices during the force test;
- d. Caution statements on critical use limitations;
- e. Application limits;
- f. Proper hook-up, anchoring and tie-off techniques, including the proper dee-ring or other attachment point to use on the body harness for fall arrest;
- g. Proper climbing techniques;
- h. Methods of inspection, use, cleaning, and storage; and
- i. Specific lifelines that may be used. This information should be provided to employees during training.

### 6. Inspection considerations:

Personal fall arrest systems must be regularly inspected. Any component with any significant defect, such as cuts, tears, abrasions, mold, or undue stretching; alterations or additions which might affect its efficiency; damage due to deterioration; contact with fire, acids, or other corrosives; distorted hooks or faulty hook springs; tongues unfitted to the shoulder of buckles; loose or damaged mountings; nonfunctioning parts; or wearing or internal deterioration in the ropes must be withdrawn from service immediately, and should be tagged or marked as unusable, or destroyed.

# FALL PROTECTION TRAINING GUIDE FOR EMPLOYEES

## Fall Protection System Considerations cont'd

### 7. Rescue considerations:

When personal fall arrest systems are used, the employer must assure that employees can be promptly rescued or can rescue themselves should a fall occur. The availability of rescue personnel, ladders or other rescue equipment should be evaluated. In some situations, equipment that allows employees to rescue themselves after the fall has been arrested may be desirable, such as devices that have descent capability.

### 8. Tie-off considerations:

- a. One of the most important aspects of personal fall protection systems is fully planning the system before it is put into use. Probably the most overlooked component is planning for suitable anchorage points. Such planning should ideally be done before the structure or building is constructed so that anchorage points can be incorporated during construction for use later for window cleaning or other building maintenance. If properly planned, these anchorage points may be used during construction, as well as afterwards.
- b. Employers and employees should at all times be aware that the strength of a personal fall arrest system is based on its being attached to an anchoring system which does not significantly reduce the strength of the system (such as a properly dimensioned eye-bolt/snap-hook anchorage). Therefore, if a means of attachment is used that will reduce the strength of the system, that component should be replaced by a stronger one, but one that will also maintain the appropriate maximum arrest force characteristics.
- c. Tie-off using a knot in a rope lanyard or lifeline (at any location) can reduce the lifeline or lanyard strength by 50 percent or more. Therefore, a stronger lanyard or lifeline should be used to compensate for the weakening effect of the knot, or the lanyard length should be reduced (or the tie-off location raised) to minimize free fall distance, or the lanyard or lifeline should be replaced by one which has an appropriately incorporated connector to eliminate the need for a knot.
- d. Tie-off of a rope lanyard or lifeline around an "H" or "I" beam or similar support can reduce its strength as much as 70 percent due to the cutting action of the beam edges. Therefore, a webbing lanyard or wire core lifeline should be used around the beam; or the lanyard or lifeline should be protected from the edge; or free fall distance should be greatly minimized.

# FALL PROTECTION TRAINING GUIDE FOR EMPLOYEES

## Fall Protection System Considerations cont'd

- e. Tie-off where the line passes over or around rough or sharp surfaces reduces strength drastically. Such a tie-off should be avoided or an alternative tie-off rigging should be used. Such alternatives may include use of a snap-hook/dee-ring connection, wire rope tie-off, an effective padding of the surfaces, or an abrasion-resistance strap around or over the problem surface.
  - f. Horizontal lifelines may, depending on their geometry and angle of sag, be subjected to greater loads than the impact load imposed by an attached component. When the angle of horizontal lifeline sag is less than 30 degrees, the impact force imparted to the lifeline by an attached lanyard is greatly amplified. For example, with a sag angle of 15 degrees, the force amplification is about 2:1 and at 5 degrees sag, it is about 6:1. Depending on the angle of sag, and the line's elasticity, the strength of the horizontal lifeline and the anchorages to which it is attached should be increased a number of times over that of the lanyard. Extreme care should be taken in considering a horizontal lifeline for multiple tie-offs. The reason for this is that in multiple tie-offs to a horizontal lifeline, if one employee falls, the movement of the falling employee and the horizontal lifeline during arrest of the fall may cause other employees to also fall. Horizontal lifeline and anchorage strength should be increased for each additional employee to be tied-off. For these and other reasons, the design of systems using horizontal lifelines must only be done by qualified persons. Testing of installed lifelines and anchors prior to use is recommended.
  - g. The strength of an eye-bolt is rated along the axis of the bolt and its strength is greatly reduced if the force is applied at an angle to this axis (in the direction of shear). Also, care should be exercised in selecting the proper diameter of the eye to avoid accidental disengagement of snap-hooks not designed to be compatible for the connection.
  - h. Due to the significant reduction in the strength of the lifeline/lanyard (in some cases, as much as a 70 percent reduction), the sliding hitch knot should not be used for lifeline/lanyard connections except in emergency situations where no other available system is practical. The "one-and-one" sliding hitch knot should never be used because it is unreliable in stopping a fall. The "two-and-two," or "three-and-three" knot (preferable), may be used in emergency situations; however, care should be taken to limit free fall distance to a minimum because of reduced lifeline/lanyard strength.
9. Vertical lifeline considerations.

As required by the standard, each employee must have a separate lifeline when the lifeline is vertical. The reason for this is that in multiple tie-offs to a single lifeline, if one employee falls, the movement of the lifeline during the arrest of the fall may pull other employees' lanyards, causing them to fall as well.



# FALL PROTECTION TRAINING GUIDE FOR EMPLOYEES

## Fall Protection System Considerations cont'd

### 10. Snap-hook considerations:

- a. Required by this standard for all connections, locking snap-hooks incorporate a positive locking mechanism in addition to the spring loaded keeper, which will not allow the keeper to open under moderate pressure without someone first releasing the mechanism. Such a feature, properly designed, effectively prevents roll-out from occurring.
- b. The following connections must be avoided (unless properly designed locking snap-hooks are used) because they are conditions which can result in roll-out when a nonlocking snap-hook is used:
  - Direct connection of a snap-hook to a horizontal lifeline.
  - Two (or more) snap-hooks connected to one dee-ring.
  - Two snap-hooks connected to each other.
  - A snap-hook connected back on its integral lanyard.
  - A snap-hook connected to a webbing loop or webbing lanyard.
  - Improper dimensions of the dee-ring, rebar, or other connection point in relation to the snap-hook dimensions which would allow the snap-hook keeper to be depressed by a turning motion of the snap-hook.

### 11. Free fall considerations:

The employer and employee should at all times be aware that a system's maximum arresting force is evaluated under normal use conditions established by the manufacturer, and in no case using a free fall distance in excess of 6 feet (1.8 m). A few extra feet of free fall can significantly increase the arresting force on the employee, possibly to the point of causing injury. Because of this, the free fall distance should be kept at a minimum, and, as required by the standard, in no case greater than 6 feet (1.8 m). To help assure this, the tie-off attachment point to the lifeline or anchor should be located at or above the connection point of the fall arrest equipment to harness. (Since otherwise additional free fall distance is added to the length of the connecting means (i.e. lanyard).) Attaching to the working surface will often result in a free fall greater than 6 feet (1.8 m). For instance, if a 6-foot (1.8 m) lanyard is used, the total free fall distance will be the distance from the working level to the body harness attachment point plus the 6 feet (1.8 m) of lanyard length. Another important consideration is that the arresting force that the fall system must withstand also goes up with greater distances of free fall, possibly exceeding the strength of the system.

# FALL PROTECTION TRAINING GUIDE FOR EMPLOYEES

## Fall Protection System Considerations cont'd

### 12. Elongation and deceleration distance considerations.

Other factors involved in a proper tie-off are elongation and deceleration distance. During the arresting of a fall, a lanyard will experience a length of stretching or elongation, whereas activation of a deceleration device will result in a certain stopping distance. These distances should be available with the lanyard or device's instructions and must be added to the free fall distance to arrive at the total fall distance before an employee is fully stopped. The additional stopping distance may be very significant if the lanyard or deceleration device is attached near or at the end of a long lifeline, which may itself add considerable distance due to its own elongation. As required by the standard, sufficient distance to allow for all of these factors must also be maintained between the employee and obstructions below, to prevent an injury due to impact before the system fully arrests the fall. In addition, a minimum of 12 feet (3.7 m) of lifeline should be allowed below the securing point of a rope grab type deceleration device, and the end terminated to prevent the device from sliding off the lifeline. Alternatively, the lifeline should extend to the ground or the next working level below. These measures are suggested to prevent the worker from inadvertently moving past the end of the lifeline and having the rope grab become disengaged from the lifeline.

### 13. Obstruction considerations:

The location of the tie-off should also consider the hazard of obstructions in the potential fall path of the employee. Tie-offs that minimize the possibilities of exaggerated swinging should be considered.

### 14. Other considerations:

Because of the design of some personal fall arrest systems, additional considerations may be required for proper tie-off. For example, heavy deceleration devices of the self-retracting type should be secured overhead in order to avoid the weight of the device having to be supported by the employee. Also, if self-retracting equipment is connected to a horizontal lifeline, the sag in the lifeline should be minimized to prevent the device from sliding down the lifeline to a position that creates a swing hazard during fall arrest. In all cases, manufacturer's instructions should be followed.

## Pacific One Construction Self-Inspection Guide

- Power lines:** Minimum 10' clearance / insulate – de-energize, under 50 kw; over 50 kw – refer to Chapter 155
- Guardrails:** Any opening four feet or more above ground level must be guarded
- Standard guardrail:** Top rail = 39" to 45" above working surface. Midrail = halfway between top rail and floor. Toeboard = 4".
- Scaffold:** Fully planked
- Scaffold:** Fall protection provided if fall hazards over 10 feet exist
- Stairs:** Four or more risers must have handrails
- Fall protection:** Any exposure to fall hazards of 10' or greater must be eliminated by the use of safety harness/belt, lanyard or lifeline, horizontal lines, or entenary lines. Positive fall restraint/protection must be utilized at all times. Two lanyards may be necessary at the beam/upright traverse points. No exposure at any time is allowed.
- Fall protection work plan:** Job specific, in writing; available on-site for all fall hazards above 10'.
- Circular saws:** Blade guard instantly returns to covering position
- Never wedge or pin a guard.**
- Chain saw:** Ballistic nylon leg protection; eye, ear, face protection; hard hat
- Angle grinders:** 180-degree guard required
- Ladders:** All jobsite ladder to be in good working condition
- Articulating boomlift:** Safety harness and lanyard at all times
- Floor holes/openings:** Covered and secured; be sure no tripping hazards in the area.
- Extension cords/electric power tools:** Marked/covered by Assured Grounding Program
- Clothing:** Minimum of short sleeve shirts, long pants, and substantial footwear; no recreational shoes
- Hard hats:** readily accessible at all times; worn when overhead hazard exists
- Personal protective equipment:** Head, eye, ear, respiratory, and leg protection – high visibility vests when required
- Housekeeping:** Workers are responsible for their own area of exposure
- First aid/fire extinguishers:** Available and readily accessible
- First aid trained personnel:** Minimum of one person on-site at all times with first aid CPR training.
- Accident Prevention Program:** In written format
- Crew Leader Meetings:** At beginning of each job and at least weekly thereafter. Documented
- Chemical hazard communication program**

# Pacific One Construction Safety Inspection Check List

Job site: Holden at Southcenter

Date:

(S) indicates Satisfactory

(U) indicates Unsatisfactory

Date of inspection/walk around																				
<b>Unsafe Practices</b>																				
Improper lifting																				
Smoking in dangerous places																				
Horseplay																				
Running in aisles or on stairs																				
Removing machine guards																				
Working under suspended loads																				
Working on machines in motion																				
<b>First aid</b>																				
First aid kits																				
Eyewash stations																				
All injuries and illnesses reported																				
<b>Hazard Communications</b>																				
Solvents																				
Dust, vapors, or fumes																				
New chemicals/processes																				
<b>Tools</b>																				
Power tools, wiring and grounding																				
Hand tools (condition)																				
Use and storage of tools																				
<b>Personal protective equipment</b>																				
Goggles or face shield																				
Substantial footwear																				
Hard hats																				
Respirators																				
Gloves																				
Fall protection equipment																				
Other protective clothing																				
<b>Fire protection</b>																				
Extinguishing equipment																				
Exits, stairs, and signs																				
Storage of flammable materials																				
<b>Housekeeping</b>																				
Aisles, stairs and floors																				
Storage and piling of materials																				
Light and ventilation																				
<b>Exterior Power Lines</b>																				
Marked & Flagged																				

# Pacific One Chemical Hazard Communication Program

## **A. Company Policy**

Pacific One is committed to the prevention of exposures that result in injury and/or illness; and to comply with all applicable state health and safety rules. To make sure that all affected employees know about information concerning the dangers of all hazardous chemicals used by Pacific One the following hazardous chemical communication program has been established.

All work units of Pacific One will participate in the hazard communication program. This written program will be available in our main office for review by any interested employee.

## **B. Container Labeling**

Mathew Hicks is responsible for container labeling procedures, reviewing, and updating. The labeling system used at Pacific One is as follows:

All containers used by Pacific One will be the original containers supplied by our manufacturers. Those containers will have their original labels still on and clearly readable. If not, those containers will be returned to the manufacturer unopened and not used by Pacific One. No employee will use any containers not containing its original material.

It is the policy of Pacific One that no container will be released for use until the above procedures are followed.

## **C. Material Safety Data Sheets (MSDS)**

Mathew Hicks is responsible to establish and monitor the employer's MSDS program. This person will make sure procedures are developed to obtain the necessary MSDSs and will review incoming MSDSs for new or significant health and safety information. This person will see that any new information is passed on to affected employees.

Copies of MSDSs for all hazardous chemicals in use will be kept in the company's main office. MSDSs will be available to all employees during each work shift. If an MSDS is not available or a new chemical in use does not have an MSDS, immediately contact: Mathew Hicks

## **D. Employee Information and Training**

Mathew Hicks is responsible for the employee training program and will make sure that before starting work, each new employee of Pacific One will attend a health and safety orientation that includes information and training on the following:

- An overview of the requirements contained in the Hazard Communication Standard.
- Hazardous chemicals present at his or her work places.
- Physical and health risks of the hazardous chemical.
- The symptoms of overexposure.
- How to determine the presence or release of hazardous chemicals in his or her work area.
- How to reduce or prevent exposure to hazardous chemicals through use of control procedures, work practices, and personal protective equipment.
- Steps the employer has taken to reduce or prevent exposure to hazardous chemicals.
- Procedures to follow if employees are overexposed to hazardous chemicals.
- How to read labels and review MSDSs to obtain hazard information.
- Location of the MSDS file and written hazard communication program.
- An overview of the requirements contained in the Hazard Communication Standard.

Before introducing a new chemical hazard into any section of this employer, each employee in that section will be given information and training as outlined above for the new chemical.

## **E. List of hazardous chemicals**

The following is a list of all known hazardous chemicals used by our employees.

**None**

Further information on each chemical may be obtained by reviewing MSDSs located at our main office in Kirkland.

## Hazard Communication checklist

- \_\_\_ 1. Have we prepared a list of all the hazardous chemicals in our workplace?
- \_\_\_ 2. Are we prepared to update our hazardous chemical list?
- \_\_\_ 3. Have we obtained or developed a material safety data sheet for each hazardous chemical we use?
- \_\_\_ 4. Have we developed a system to ensure that all incoming hazardous chemicals are checked for proper labels and data sheets?
- \_\_\_ 5. Do we have procedures to ensure proper labeling or warning signs for containers that hold hazardous chemicals?
- \_\_\_ 6. Are our employees aware of the specific information and training requirements of the Hazard Communication Standard?
- \_\_\_ 7. Are our employees familiar with the different types of chemicals and the hazards associated with them?
- \_\_\_ 8. Have our employees been informed of the hazards associated with performing non-routine tasks?
- \_\_\_ 9. Are employees trained about proper work practices and personal protective equipment in relation to the hazardous chemicals in their work area?
- \_\_\_ 10. Does our training program provide information on appropriate first aid, emergency procedures, and the likely symptoms of overexposure?
- \_\_\_ 11. Does our training program include an explanation of labels and warnings that are used in each work area?
- \_\_\_ 12. Does the training describe where to obtain data sheets and how employees may use them?
- \_\_\_ 13. Have we worked out a system to ensure that new employees are trained before beginning work?
- \_\_\_ 14. Have we developed a system to identify new hazardous chemicals before they are introduced into a work area?
- \_\_\_ 15. Do we have a system for informing employees when we learn of new hazards associated with a chemical?

## Hazardous Substances

### Employee Orientation Checklist

Employee Name: \_\_\_\_\_

Title: \_\_\_\_\_ Date hired: \_\_\_\_\_

Trainer Name: \_\_\_\_\_

This checklist is to inform employees of Pacific One of its Hazard Communication Program. Place a check in each box to indicate that the subject has been covered.

The supervisor has reviewed the following information with the employee:

1. The purpose of the hazard communication standard is to require chemical manufacturers or importers to assess the hazards of chemicals they produce or import. All employers must provide information to their employees about the hazardous chemicals to which they may be exposed.

Employees must be informed about the hazard communication program, labels and other forms of warning, and material safety data sheets, and they must have training on the hazardous substances they may encounter.

2. The supervisor has reviewed the hazardous chemical list with the employee.

3. The supervisor has shown the employee the following:

- Location of hazardous chemicals within the employee's work site.
- Location of the written Hazard Communication Program.
- Location of the material safety data sheets for all hazardous chemicals in the employee's assigned work area.
- Location of the list of person(s) trained and authorized to handle the hazardous chemicals.

The signature below documents that the appropriate elements have been talked over to the satisfaction of both parties and that both the supervisor and employee accept responsibility for maintaining a safe and healthful work environment.

Date: \_\_\_\_\_ Supervisor's signature: \_\_\_\_\_

Date: \_\_\_\_\_ Employee's signature: \_\_\_\_\_

- **NOTE TO SUPERVISOR:** If this employee is expected to actually handle chemicals, please notify Mathew Hicks for training before employee begins actual work.



# Pacific One Construction

## Personal Protective Equipment Policy

### Introduction

The purpose of the Personal Protective Equipment Policies is to protect the employees of Pacific One from exposure to work place hazards and the risk of injury through the use of personal protective equipment (PPE). PPE is not a substitute for more effective control methods and its use will be considered only when other means of protection against hazards are not adequate or feasible. It will be used in conjunction with other controls unless no other means of hazard control exist.

Personal protective equipment 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 lessen the likelihood of occupational injury and/or illness.

This section addresses general PPE requirements, including eye and face, head, foot and leg, hand and arm, body (torso) protection, and protection from drowning. Separate programs exist for respiratory protection and hearing protection as the need for participation in these programs is established through industrial hygiene monitoring.

Our Personal Protective Equipment Policy includes:

- Responsibilities of supervisors and employees
- Hazard assessment and PPE selection
- Employee training
- Cleaning and Maintenance of PPE

# Responsibilities

## Management

Mikey Metcalf is responsible for the development, implementation, and administration of Pacific One's PPE policies. This involves

1. Conducting workplace hazard assessments to determine the presence of hazards which necessitate the use of PPE.
2. Selecting and purchasing PPE.
3. Reviewing, updating, and conducting PPE hazard assessments whenever  
a job changes  
new equipment is used  
there has been an accident  
a supervisor or employee requests it  
or at least every year
4. Maintaining records on hazard assessments.
5. Maintaining records on PPE assignments and training.
6. Providing training, guidance, and assistance to supervisors and employees on the proper use, care, and cleaning of approved PPE.
7. Periodically re-evaluating the suitability of previously selected PPE.
8. Reviewing, updating, and evaluating the overall effectiveness of PPE use, training, and policies.

## Employees

The PPE user is responsible for following the requirements of the PPE policies. This involves

1. Properly wearing PPE as required.
2. Attending required training sessions.
3. Properly caring for, cleaning, maintaining, and inspecting PPE as required.
4. Following Pacific One PPE policies and rules.
5. Informing the supervisor of the need to repair or replace PPE.

## **Procedures**

### **A. Hazard Assessment for PPE**

Mikey Metcalf, in conjunction with Supervisors, will conduct a walk-through survey of each work area to identify sources of work hazards. Each survey will be documented using the Hazard Assessment Certification Form, which identifies the work area surveyed, the person conducting the survey, findings of potential hazards, and date of the survey. These forms will be kept in the main office.

Mikey Metcalf will conduct, review, and update the hazard assessment for PPE whenever

- a job changes
- new equipment or process is installed
- there has been an accident
- whenever a supervisor or employee requests it
- or at least every year

Any new PPE requirements that are developed will be added into Pacific One's written accident prevention program.

### **B. Selection of PPE**

Once the hazards of a workplace have been identified, Mikey Metcalf will determine if the hazards can first be eliminated or reduced by methods other than PPE, i.e., methods that do not rely on employee behavior, such as engineering controls (refer to Appendix B – Controlling Hazards).

If such methods are not adequate or feasible, then Mikey Metcalf will determine the suitability of the PPE presently available; and as necessary, will select new or additional equipment which ensures a level of protection greater than the minimum required to protect our employees from the hazards (refer to Appendix C – Selection of PPE). 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 each of the hazards will be recommended for purchase.

All personal protective clothing and equipment will be of safe design and construction for the work to be performed and will be maintained in a sanitary and reliable condition. Only those items of protective clothing and equipment that meet NIOSH or ANSI (American National Standards Institute) standards will be procured or accepted for use.

Newly purchased PPE must conform to the updated ANSI standards which have been incorporated into the PPE regulations, as follows:

Eye and Face Protection ANSI Z87.1-1989

Head Protection ANSI Z89.1-1986

Foot Protection ANSI Z41.1-1991

Hand Protection (There are no ANSI standards for gloves, however, selection must be based on the performance characteristics of the glove in relation to the tasks to be performed.)

Affected employees whose jobs require the use of PPE will be informed of the PPE selection and will be provided PPE by Pacific One at no charge. Careful consideration will be given to the comfort and proper fit of PPE in order to ensure that the right size is selected and that it will be used.

### **C. Training**

Any worker required to wear PPE will receive training in the proper use and care of PPE before being allowed to perform work requiring the use of PPE. Periodic retraining will be offered to PPE users as needed. The training will include, but not necessarily be limited to, the following subjects:

When PPE is necessary to be worn

What PPE is necessary

How to properly don, doff, adjust, and wear PPE

The limitations of the PPE

The proper care, maintenance, useful life, and disposal of the PPE

After the training, the employees will demonstrate that they understand how to use PPE properly, or they will be retrained.

Training of each employee will be documented using the Personal Protective Equipment Training Documentation Form and kept on file. The document certifies that the employee has received and understood the required training on the specific PPE he/she will be using.

The PPE Training Quiz will be used to evaluate employees' understanding and will be kept in the employee training records.

## **Retraining**

The need for retraining will be indicated when

- an employee's work habits or knowledge indicates a lack of the necessary understanding, motivation, and skills required to use the PPE (i.e., uses PPE improperly)
- new equipment is installed
- changes in the work place make previous training out-of-date
- changes in the types of PPE to be used make previous training out-of-date

## **D. Cleaning and Maintenance of PPE**

It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. Employees must inspect, clean, and maintain their PPE according to the manufacturers' instructions before and after each use. Supervisors are responsible for ensuring that users properly maintain their PPE in good condition.

Personal protective equipment must not be shared between employees until it has been properly cleaned and sanitized. PPE will be distributed for individual use whenever possible. If employees provide their own PPE, make sure that it is adequate for the work place hazards, and that it is maintained in a clean and reliable condition.

Defective or damaged PPE will not be used and will be immediately discarded and replaced. It is also important to ensure that contaminated PPE which cannot be decontaminated is disposed of in a manner that protects employees from exposure to hazards.

## **E. Safety Disciplinary Policy**

Pacific One believes that a safety and health Accident Prevention Program is unenforceable without some type of disciplinary policy. Our company believes that in order to maintain a safe and healthful workplace, the employees must be cognizant and aware of all company, State, and Federal safety and health regulations as they apply to the specific job duties required. The following disciplinary policy is in effect and will be applied to all safety and health violations.

The following steps will be followed unless the seriousness of the violation would dictate going directly to Step 2 or Step 3.

1. A first time violation will be discussed orally between company supervision and the employee. This will be done as soon as possible.
2. A second time offense will be followed up in written form and a copy of this written documentation will be entered into the employee's personnel folder.
3. A third time violation will result in time off or possible termination, depending on the seriousness of the violation.

# Hazard Assessment for PPE

## Use with WAC 296-800-160 Personal Protective Equipment (PPE)

This tool can help you do a hazard assessment to see if your employees need to use personal protective equipment (PPE) by identifying activities that may create hazards for your employees. The activities are grouped according to what part of the body might need PPE. You can make copies, modify and customize it to fit the specific needs of your particular work place, or develop your own form that is appropriate to your work environment.

This tool can also serve as written certification that you have done a hazard assessment as required by WAC 296-800-16010 Document your hazard assessment for PPE. Make sure that the blank fields at the beginning of the checklist (indicated by \*) are filled out (see below, Instructions #4).

### Instructions:

1. Do a walk through survey of each work area and job/task. Read through the list of work activities in the first column, putting a check next to the activities performed in that work area or job.
2. Read through the list of hazards in the second column, putting a check next to the hazards to which employees may be exposed while performing the work activities or while present in the work area. (For e.g., work activity: chopping wood; work-related exposure: flying particles).
3. Decide how you are going to control the hazards. Try considering engineering, work place, and/or administrative controls to eliminate or reduce the hazards before resorting to using PPE. If the hazard cannot be eliminated without using PPE, indicate which type(s) of PPE will be required to protect your employee from the hazard.
4. Make sure that you complete the following fields on the form (indicated by \*) to certify that a hazard assessment was done:
  - \*Name of your work place
  - \*Address of the work place where you are doing the hazard assessment
  - \*Name of person certifying that a workplace hazard assessment was done
  - \*Date the hazard assessment was done

## PPE Hazard Assessment Certification Form

\*Name of work place: \_\_\_\_\_

\*Assessment conducted by: \_\_\_\_\_

\*Work place address: \_\_\_\_\_

\*Date of assessment: \_\_\_\_\_

Work area(s): \_\_\_\_\_

Job/Task(s): \_\_\_\_\_

\*Required for certifying the hazard assessment.

Use a separate sheet for each job/task or work area

### EYES

<p><u>Work activities, such as:</u></p> <input type="checkbox"/> abrasive blasting <input type="checkbox"/> sanding <input type="checkbox"/> chopping <input type="checkbox"/> sawing <input type="checkbox"/> cutting <input type="checkbox"/> grinding <input type="checkbox"/> drilling <input type="checkbox"/> hammering <input type="checkbox"/> welding <input type="checkbox"/> punch press operations <input type="checkbox"/> other: _____	<p><u>Work-related exposure to:</u></p> <input type="checkbox"/> airborne dust <input type="checkbox"/> flying particles <input type="checkbox"/> blood splashes <input type="checkbox"/> hazardous liquid chemicals <input type="checkbox"/> intense light <input type="checkbox"/> other: _____	<p><u>Can hazard be eliminated without the use of PPE?</u>          Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p><u>If no, use:</u></p> <input type="checkbox"/> Safety glasses <input type="checkbox"/> Side shields <input type="checkbox"/> Safety goggles <input type="checkbox"/> Dust-tight goggles <input type="checkbox"/> Shading/Filter (# _____) <input type="checkbox"/> Welding shield <input type="checkbox"/> Other: _____
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### FACE

<p><u>Work activities, such as:</u></p> <input type="checkbox"/> cleaning <input type="checkbox"/> foundry work <input type="checkbox"/> cooking <input type="checkbox"/> welding <input type="checkbox"/> siphoning <input type="checkbox"/> mixing <input type="checkbox"/> painting <input type="checkbox"/> pouring molten metal <input type="checkbox"/> dip tank operations <input type="checkbox"/> other _____	<p><u>Work-related exposure to:</u></p> <input type="checkbox"/> hazardous liquid chemicals <input type="checkbox"/> extreme heat/cold <input type="checkbox"/> potential irritants: _____ <input type="checkbox"/> other: _____	<p><u>Can hazard be eliminated without the use of PPE?</u>          Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p><u>If no, use:</u></p> <input type="checkbox"/> Face shield <input type="checkbox"/> Shading/Filter (# _____) <input type="checkbox"/> Welding shield <input type="checkbox"/> Other: _____
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### HEAD

<p><u>Work activities, such as:</u></p> <input type="checkbox"/> building maintenance <input type="checkbox"/> confined space operations <input type="checkbox"/> construction <input type="checkbox"/> electrical wiring <input type="checkbox"/> walking/working under catwalks <input type="checkbox"/> walking/working under conveyor belts <input type="checkbox"/> walking/working under crane loads <input type="checkbox"/> utility work <input type="checkbox"/> other: _____	<p><u>Work-related exposure to:</u></p> <input type="checkbox"/> beams <input type="checkbox"/> pipes <input type="checkbox"/> exposed electrical wiring or components <input type="checkbox"/> falling objects <input type="checkbox"/> machine parts <input type="checkbox"/> other: _____	<p><u>Can hazard be eliminated without the use of PPE?</u>          Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p><u>If no, use:</u></p> <input type="checkbox"/> Vest, Jacket <input type="checkbox"/> Coveralls, Body suit <input type="checkbox"/> Raingear <input type="checkbox"/> Apron <input type="checkbox"/> Welding leathers <input type="checkbox"/> Abrasion/cut resistance <input type="checkbox"/> Other: _____
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**HANDS/ARMS**

Work activities, such as:

- baking
  - cooking
  - grinding
  - welding
  - working with glass
  - using computers
  - using knives
  - dental and health care services
  - other: \_\_\_\_\_
- material handling
  - sanding
  - sawing
  - hammering

Work-related exposure to:

- blood
- irritating chemicals
- tools or materials that could scrape, bruise, or cut
- extreme heat/cold
- other: \_\_\_\_\_

Can hazard be eliminated without the use of PPE?

Yes  No

If no, use:

- Gloves
  - Chemical resistance
  - Liquid/leak resistance
  - Temperature resistance
  - Abrasion/cut resistance
  - Slip resistance
- Protective sleeves
- Other: \_\_\_\_\_

**FEET/LEGS**

Work activities, such as:

- building maintenance
- construction
- demolition
- food processing
- foundry work
- logging
- plumbing
- trenching
- use of highly flammable materials
- welding
- other: \_\_\_\_\_

Work-related exposure to:

- explosive atmospheres
- explosives
- exposed electrical wiring or components
- heavy equipment
- slippery surfaces
- tools
- other: \_\_\_\_\_

Can hazard be eliminated without the use of PPE?

Yes  No

If no, use:

- Safety shoes or boots
  - Toe protection
  - Electrical protection
  - Puncture resistance
  - Anti-slip soles
- Leggings or chaps
- Foot-Leg guards
- Other: \_\_\_\_\_
- Metatarsal protection
- Heat/cold protection
- Chemical resistance

**BODY/SKIN**

Work activities such as:

- baking or frying
- battery charging
- dip tank operations
- fiberglass installation
- irritating chemicals
- sawing
- other: \_\_\_\_\_

Work-related exposure to:

- chemical splashes
- extreme heat/cold
- sharp or rough edges
- other: \_\_\_\_\_

Can hazard be eliminated without the use of PPE?

Yes  No

If no, use:

- Vest, Jacket
- Coveralls, Body suit
- Raingear
- Apron
- Welding leathers
- Abrasion/cut resistance
- Other: \_\_\_\_\_

BODY/WHOLE <sup>1</sup>		
<p>Work activities such as:</p> <input type="checkbox"/> building maintenance <input type="checkbox"/> construction <input type="checkbox"/> logging <input type="checkbox"/> utility work <input type="checkbox"/> other: _____	<p>Work-related exposure to:</p> <input type="checkbox"/> working from heights of 10 feet or more <input type="checkbox"/> working near water <input type="checkbox"/> other: _____	<p>Can hazard be eliminated without the use of PPE?                      Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If no, use:  <input type="checkbox"/> Fall Arrest/Restraint: Type: _____  <input type="checkbox"/> PFD: Type: _____  <input type="checkbox"/> Other: _____</p> <p>*(See Footnote 1)</p>

LUNGS/RESPIRATORY <sup>1</sup>		
<p>Work activities such as:</p> <input type="checkbox"/> cleaning <input type="checkbox"/> mixing <input type="checkbox"/> painting <input type="checkbox"/> fiberglass installation <input type="checkbox"/> compressed air or gas operations <input type="checkbox"/> other: _____	<p>Work-related exposure to:</p> <input type="checkbox"/> irritating dust or particulate <input type="checkbox"/> irritating or toxic gas/vapor <input type="checkbox"/> other: _____	<p>Can hazard be eliminated without the use of PPE?                      Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>*(See Footnote 1)</p>

EARS/HEARING <sup>1</sup>		
<p>Work activities such as:</p> <input type="checkbox"/> generator <input type="checkbox"/> ventilation fans <input type="checkbox"/> motors <input type="checkbox"/> sanding <input type="checkbox"/> pneumatic equipment <input type="checkbox"/> punch or brake presses <input type="checkbox"/> use of conveyors <input type="checkbox"/> other: _____	<p>Work-related exposure to:</p> <input type="checkbox"/> grinding <input type="checkbox"/> machining <input type="checkbox"/> routers <input type="checkbox"/> sawing <input type="checkbox"/> loud noises <input type="checkbox"/> loud work environment <input type="checkbox"/> noisy machines/tools <input type="checkbox"/> punch or brake presses <input type="checkbox"/> other: _____	<p>Can hazard be eliminated without the use of PPE?                      Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>*(See Footnote 1)</p>