

2026 Contractor Safety Handbook





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Glossary of Terms

Authorized Employee: A person who locks out or tags out machines or equipment to perform servicing or maintenance on that machine or equipment (LOTO).

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

Buddy System: A practice where two workers monitor each other's safety, used when working alone is discouraged or when hazards are present.

Competent Person: One who can identify existing and predictable hazards in the surroundings or working conditions and has authorization to take prompt corrective measures to eliminate them (e.g., required for excavation and scaffolding).

Confined Space: A space that has limited means for entry/exit, is large enough to enter, and is not designed for continuous occupancy.

Permit-Required Confined Space: A confined space that contains, or has the potential to contain, a hazardous atmosphere; material that could engulf; inwardly converging walls/sloping floors that could trap; or any other recognized serious hazard.



Controlled Access Zone (CAZ): An area designated and clearly marked (typically with red 'DANGER' tape and signage) to limit entry where significant hazards exist until controls are in place.

Critical Lift: A lift meeting predefined risk thresholds (e.g., exceeding a set percentage of crane capacity, multi-crane lifts, special or high-consequence loads) that requires a written plan and additional approvals.

Drop Zone: A designated zone set back from an open edge where materials/tools may be staged and must be controlled to prevent dropped-object hazards.

Fall Arrest System (Personal): A system used to arrest a worker in a fall from a working level, typically consisting of an anchorage ($\geq 5,000$ lbs. per person or engineered equivalent), full-body harness, connector, and lifeline or lanyard.

Fall Restraint System: A system that prevents a worker from reaching a fall hazard by limiting travel to within a safe area.

Ground Disturbance: Any activity that moves or penetrates the ground (e.g., digging, trenching, drilling/boring, grading, driving stakes/pins).

Hazard Communication (HazCom): A program that ensures employees know about chemical hazards through SDS access, labeling (including secondary containers), and training.

Hot Work: Any operation that can produce ignition sources or heat/sparks (e.g., welding, cutting, grinding) and requires a hot work permit and fire watch.

WAC citations to individual terms as needed (e.g., Fall Protection — WAC 296-880; LOTO — WAC 296-803; Confined Space — WAC 296-809; Scaffolds — WAC 296-874; Ladders — WAC 296-876; Excavation — WAC 296-155 Part N; Electrical — WAC 296-24/296-45/296-155; HazCom — WAC 296-901).



Horizontal Lifeline (HLL): A flexible line rigged in a horizontal plane to which a worker's lanyard or SRL is connected; must be designed/used under a qualified person's supervision.

Leading Edge (LE): An unprotected side or edge during construction where an edge is being formed; also used to describe SRLs tested and rated for leading-edge exposures.

Lockout/Tagout (LOTO): Procedures and hardware used to isolate energy sources and prevent unexpected energization/startup or release of stored energy during servicing/maintenance.

Mid-Rail: The intermediate rail in a guardrail system installed at approximately half the height between the top rail and the walking/working surface.

Most Restrictive Rule Applies: Where company, owner, local, state, or federal rules differ, the rule offering the highest level of protection governs.

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

Rescue Plan (Fall Protection): Written, pre-planned methods and equipment to promptly rescue a fallen, suspended worker and minimize suspension trauma.

Scaffold Tag System: Color-coded tags (e.g., red, yellow, green) posted at scaffold access points indicating status/requirements before use and after each shift inspection.

WAC citations to individual terms as needed (e.g., Fall Protection — WAC 296-880; LOTO — WAC 296-803; Confined Space — WAC 296-809; Scaffolds — WAC 296-874; Ladders — WAC 296-876; Excavation — WAC 296-155 Part N; Electrical — WAC 296-24/296-45/296-155; HazCom — WAC 296-901).



Secondary Container Labeling: Labeling applied to containers that hold a chemical transferred from the original manufacturer's container; must identify product and hazards and be consistent with HazCom.

Site-Specific Safety Plan (SSSP): A plan detailing how the contractor will meet safety requirements for the site, including task-specific procedures and controls.

Toe Board: A low protective barrier (≥ 3.5 in high) at the edge of a walking/working surface to prevent objects from falling to lower levels.

Warning Line: A barrier erected to warn workers that they are approaching an unprotected side or edge; only permissible in certain roofing operations and configurations.

Work at Height: Any work performed at or above the trigger height (generally 4 ft for general industry at GCPUD) that requires fall protection or prevention measures.

Editor's note: When you insert this into the handbook, consider appending section-level



Please Be Advised

**THE ITEMS OUTLINED IN THIS DOCUMENT ARE THE BASIC RULES
GOVERNING SAFE WORK ON ALL GCPUD JOBSITES.
ANY VARIANCE FROM THESE RULES OR OTHER SITE OR OWNER
RULES MUST BE SUBMITTED AND APPROVED BY GCPUD BEFORE
THEY ARE PUT INTO PRACTICE.
THESE RULES ARE SUBJECT TO CHANGE WITHOUT NOTICE OR
UPDATE TO CONTRACT.**



Emergency Information

Poison Control: 1-800-222-1222

DSOC: (509) 766-2538

IN CASE OF EMERGENCY:

Dial 9-1-1 or designated emergency number.

Give a brief description of the emergency.

Give the location of the emergency.

BE SURE TO KNOW:

Evacuation route(s)

AED Location(s)

Fire Extinguisher Location(s)

Eye Wash Station Location(s)

First-Aid kit location(s)

Emergency Shower Location(s)



Personal Safety

Your personal safety and overall well-being are a Core Value important goal for any GCPUD (Grant County Public Utility District) project is that you go home injury free every day, so you can enjoy quality time with your family and friends. This code booklet outlines important safety requirements and expectations with the ultimate objective of creating a safe and healthy work environment for you and your co-workers to work in. Keep in mind, *safety is everybody's responsibility, and it always starts with you!* To help support the incident free safety culture we strive to achieve on every project and office, we need your active safety participation.

PLAN YOUR WORK. You must understand the potential hazards and precautions that must be taken for the tasks you are being asked to perform. Speak up if something is not clear to you or you have a concern. Do not perform any tasks that you feel you are not qualified and competent to perform. Make sure you fully understand the safe work plan for the day. Perform job briefs/tailboard meetings daily to discuss these situations.

STOP WORK AUTHORITY. We all know even the best-made plans may need to change. When this happens, **STOP THE WORK**, get with your supervisor, and revise the plan. Remember to use your Stop Work Authority! If you see something unsafe, say something.

EMERGENCY PROCEDURES. Make sure you understand what to do and where to go in the event of a site emergency. Know the alarms, what they mean, and where the "muster" points are. Know how to initiate an emergency call.

PERSONAL PROTECTIVE EQUIPMENT (PPE).

GCPUD (Grant County Public Utility District) requires a minimum level of PPE (Personal Protection Equipment) that covers most situations. Sometimes, your work may require more protection. Use the best PPE (Personal Protection Equipment) for the work you are doing. Always try to eliminate the risk by engineering/design.



STAY ALERT AT ALL TIMES. Always be aware of your surroundings. A lot is moving on a construction site. Safely look overhead when you see cranes or other overhead activity to prevent being under a load. Never cross **DANGER** tape unless given approval. Always keep all your body parts out of the "line of fire" Keep all your body parts out of the "line of fire" to avoid being "struck or caught by" something. If you can, correct hazards you see before they hurt you or others. If you cannot correct the hazard yourself, stop the work and report the hazard to your supervisor.

REPORT ALL INCIDENTS IMMEDIATELY. If something happens to you or a co-worker, get it reported ASAP so the situation can be effectively managed as soon as possible. Report even minor injuries or near misses to the District Representative. This helps us learn about them so we can work to prevent them from happening in the future.

TOOLS AND EQUIPMENT. Have you been trained to use the tool or equipment you are being asked to use? If not, do not use it and talk to a supervisor. Make sure all safety devices are in place and in use during operations (e.g., guards, handles, safety triggers).

100% FALL PROTECTION AT 4' AND HIGHER. Elevated work is considered a considerable risk. Do you know how to use fall protection if required? If not, seek the training needed. Tips: Are all holes covered securely? Are leading edges on roofs and other areas properly barricaded/protected? If leading edges cannot be hard barricaded, personal fall protection is required. Personal fall protection is also always required in all boom lifts (4' lanyard or personal retractable).



PROTECT YOUR BODY FROM STRESS. There is physical and mental stress that can get put on our bodies and minds. Never lift over 50lbs alone. If the object is heavy/awkward, get help. Mechanical means, wheeled carts, dollies, and other devices make material handling tasks safer. Keep work close to the middle of the body. Avoid repetitive motion tasks like working overhead or below the knee for extended periods. Rotate jobs if/when possible. If you are feeling unusually fatigued, depressed, on edge, or are dealing with personal issues, please consider talking to someone about getting help.

PREPARE FOR CHANGING JOB SITE CONDITIONS. Watch out for your fellow workers - especially during hot/ cold weather. If co-workers are struggling, take a break and get help. If you are struggling, do not be afraid to ask for help. Dress appropriately, take breaks when needed and make sure you drink plenty of water. Always keep a close eye on the weather and the impacts on you and your co-workers. Keep several types of gear and clothing accessible in case it is needed. Working conditions can change rapidly on a construction site. Slow down if needed to stay safe.



Physical Security

All contractors are expected to support the security of Grant PUD personnel, assets, and facilities while on District property.

Access Control and Badge Responsibilities

Contractor badges and access devices are issued for individual use only and must not be shared, transferred, or used by another person. Badges must be visibly displayed while within any secured facility or controlled area unless otherwise directed.

Contractors shall only access areas for which they are authorized. Entry into secured areas must be completed using an issued access device or under escort. Tailgating or allowing unauthorized individuals to enter through secured access points is not permitted.

Contractors are responsible for maintaining control of their badge at all times. Lost, stolen, or misplaced badges must be reported immediately to the District Representative or Security.

Upon completion of work, end of assignment, or upon request, all badges and access devices must be returned. Contractors shall not retain access devices after their work is complete.

Security Awareness and Reporting

Contractors must remain alert to their surroundings and take reasonable steps to ensure District facilities, equipment, and work areas are secure.

Any suspicious activity, security concern, or unauthorized access must be reported immediately to the District Security Operations Center (DSOC) at 509.766.2538.

Failure to follow physical security requirements may result in removal from site.



Introduction

Thank you for choosing to work with GCPUD. The most important goal is to ensure you return home safely without injury every day.

The GCPUD (Grant County Public Utility District) Core Values:

- Nothing is more important than your safety.
- Prevention of injuries and incidents is possible if everyone chooses to work safely.
- Safety is Everyone's responsibility.
- Safety is a way of life 24/7.

The rules and instructions contained in this booklet are for the protection and benefit of employees on every GCPUD job site. Violation of any safety rules will be sufficient grounds for immediate removal from project depending upon seriousness and/or repetition of the violation.

The rules contained in this booklet are the minimums for all GCPUD projects. Citations are available throughout the booklet for your convenience.

Report all injuries, property damage and "close calls" immediately.

Identify and correct any safety hazards -

"See Something, Say Something!"



Basic Safety

Employer and controlling contractor will ensure prompt hazard correction, employee right to report hazards without retaliation, and multi-employer coordination duties per WAC 296-800-110.

- Never do anything unsafe to get the job done. If a job is unsafe, report it to your supervisor prior to proceeding.
- Do not remove or disable any safety device. Keep guards in place on operating machinery.
- Never operate a piece of equipment unless you have been trained and are authorized to operate the equipment.
- Use appropriate PPE (Personal Protection Equipment) whenever it is required.
- Obey all safety warning signs.
- Working under the influence of alcohol or illegal drugs or using them at work is prohibited.
- Do not bring firearms or explosives onto PUD property.
- Smoking is only permitted outside buildings in designated areas at a minimum distance of 25 feet from any entrance, operable window, or ventilation intake.
- Horseplay, running, and fighting are prohibited at all PUD facilities.
- Clean up spills immediately. Replace all tools and supplies after use. Practice good housekeeping of your work area or job site.



General Safe Work Expectations

- Always follow all work site rules, signs, markings, and instructions. Make sure you fully understand them. If you do not know - ASK!
- All injuries, property damage, theft, or other incidents as well as near misses (Close Calls) are to be reported to GCPUD immediately, via your District Representative.
- All personnel are prohibited from being under the influence of drugs or alcohol while on GCPUD jobsites or GCPUD- controlled premises.
- Deliberate destruction, defacing, marking on, abusing or theft of owner/company property is prohibited and will not be tolerated.
- Fighting, assaulting and physically or verbally abusing any employee is cause for immediate dismissal.
- Falsification of any records, misrepresentation or withholding of facts to secure the job is cause for dismissal.
- Never misuse or remove from the premises, without proper authorization, any employee lists, blueprints, company records or confidential information.
- Pictures and videos taken on GCPUD project sites are to be used for work purposes only. All personnel are to abide by any site/owner rules regarding prohibiting pictures in certain areas or on the entire site, as they are communicated by the owner (especially regarding high- security areas).
- The contractor(s) is/are required to hold their own weekly safety meetings and documentation relevant to the meetings.
- There may be special site wide safety meetings held, like a post-incident stand down. There will also be JSRs conducted on your **site**.

(WAC 296-800-110)

HR-SOC-POL-500 – GENERAL WORK RULES



Each contractor is responsible for maintaining housekeeping throughout the entire work shift.

- All trash is to be placed in proper receptacles. Littering and discarding trash on the ground or floor is prohibited.
- Hoppers and bins for transporting trash must be manufactured trash containers. "Homemade" wooden boxes are not to be used on premises.
- Discard and/or store oily rags and similar combustible materials in metal containers designated for that purpose.
- Always properly secure machinery guards, guardrails, mid- rails, and other protective devices always.
- Throwing or dropping materials from an upper elevation is not allowed.
- When lifting heavy materials, use the recommended lifting technique - bend your knees, grasp the load firmly and then raise the load keeping your back as straight as possible. GET HELP FOR HEAVY LOADS or use proper equipment to assist.
- Any variance for performing a work activity in a manner different than prescribed in GCPUD's Safety Program and/ or different law or statute shall be documented, approved by GCPUD, and communicated on a site-by-site basis. The contractor Site Specific Safety Plan must reflect any variances.



- It is discouraged to have employees working alone and/or isolated. Workers must either be on a buddy system with another worker or regular checks should be made on the worker by the supervisor - especially when the worker is exposed to extreme temperatures or other hazards.
- **ALWAYS** wear the required Personal Protection Equipment (PPE) and inspect it before each use. Replace any PPE with excess damage/wear.
- Jewelry that could act as a conductor must be removed when working around electrical equipment. Wearing jewelry while working around moving machinery is not allowed.
- **NEVER** wear loose clothing that could get caught in machinery/equipment. Keep hair pulled tight to prevent getting caught in machinery/tools.
- **NEVER** work on electrical circuits unless authorized and/or qualified to do so.
- All employees who operate powered industrial vehicles **must** have a valid driver's license and have appropriate training.
- **NEVER** block electrical panels/rooms, safety showers, eyewash stations, fire hoses, sprinkler heads, fire extinguishers, First Aid Kits, or AEDs.
- **NEVER** fight fires unless trained to operate fire- extinguishing devices. Do not place yourself in danger by putting out the fire. Get yourself and others out and let the fire department extinguish the fire.



- **ALWAYS** hold the handrails when going up/downstairs. Do not skip stairs and maintain three points of contact when traveling up/down.
- **ALWAYS** treat any blood or bodily fluid as potentially contaminated (universal precautions) and do not contact it unless trained and protected to handle such materials.



Weather

All supervisors are to monitor the weather and be prepared to respond appropriately to changing conditions.

Lightning

- **30 MILES AWAY FROM SITES**
 - When lightning is within 30 miles of site:
 - District Representative will notify subcontractors who will secure material and prepare to shutdown outdoor work.
- **10 MILES AWAY FROM SITES**
 - When lightning is within 10 miles of the site:
 - All outdoor work is to stop, and workers are to move to the designated shelter location.
 - Workers on metal decks not covered in concrete are to stop and move to the designated shelter area.
- Work will be stopped for 30 minutes after the last visible lightning strike or when the lightning is at least 10 miles past the site.

Cold Weather

- In colder months, a Warm Zone will be provided and is to be utilized for workers to warm up from cold weather as needed throughout the day.
- Verify plans are in place to keep walks safe.



Hot Weather

When the temperature is at or above 89 degrees, Contractors will respond to the extreme heat by:

- Providing shade or another sufficient means for employees to cool down; and
- Ensuring workers have a paid cool-down rest period of at least 10 minutes every two hours.
- Ensure that effective communication by voice, observation, or electronic means is maintained so that employees at the work site and their supervisor can contact each other when necessary. An electronic device, such as a cellular phone or text messaging device, may be used for this purpose only if reception in the area is reliable.
- Provide water that is cool enough to drink safely; and
- Allow and encourage workers to take additional paid preventative cool-down rest periods to protect them from overheating.
- Closely observe employees for signs and symptoms of heat-related illness by regular communication with employees such as by radio or cellular phone; a mandatory buddy system; or other effective means of observation

Winds

- Wind speeds must be constantly monitored whenever materials are being hoisted.
- Always secure materials to roof decks when high winds are anticipated.
- Secure signage, gates, and materials when high winds are anticipated.



Personal Protective Equipment

These requirements apply to all personnel onsite, including visitors, technicians and delivery drivers who are outside the cab of their vehicles. Additional site-specific requirements may apply.

- Personal Protection Equipment (PPE) is required 100% of the time on GCPUD jobsites. This includes but is not limited to:
 - ANSI Z87 safety glasses with side shields
 - Gloves
 - Hearing Protection (in noisy environments)
 - Hard Hat
 - Sturdy Work Boots
 - High visibility outerwear (shirt - 4" sleeves, jacket, or vest)
 - Long pants
- Workers are required to inspect their PPE before each use and get worn or damaged items repaired or replaced.
- Specific Requirements:

Foot Protection

- Sturdy work boots with appropriate traction and protection for conditions are required.
- Open-toed, soft toed, such as tennis-type shoes, are inappropriate footwear for a job site and their use is prohibited.



Eye Protection

- All safety glasses must be ANSI Z87-rated, including prescription glasses.
- If prescription glasses are not ANSI Z87-rated, they must be covered with goggles or over-the-glass style glasses.
- Foam-lined glasses/goggles **and** face shields are required while performing work tasks such as chipping concrete, grinding, handling chemicals, using a hose to place concrete, use of powder-actuated tools, using demo or chop saw, grinders, etc.

Head Protection

- Hard hats are to be always worn on the jobsite
- Must have a Type 1 or 2 rating {Impact}
- Must have Class E or G-rating {Electrical Protection}
- Hard hat types and styles NOT PERMITTED FOR USE:
 - Metal hard hats
 - Cowboy hat-style hard hats
 - Bump caps
 - Other styles not meeting the requirements listed above
- Hard hats are to be worn during all hot work - hard hats are to be compatible with face shields and welding hoods - bump caps are not considered adequate protection and are NOT allowed.



- Operators of equipment in a *cab with a solid roof* are not required to wear hard hats while in the cab. All other roof types or open cabs require a hard hat.
- Items are not to be stored under the hard hat (keys, wallet, cigarettes, etc.) between the head and the hard hat.
- Baseball caps are not to be worn under the hard hat. Soft, weather-related head coverings may be permitted - knit cap/beanies, balaclava/ski masks, hard hat liners, sweat bands, and do-rags/skull caps

Hand and Arm Protection

- Proper gloves are to be worn
 - Exceptions for glove use (when working with small parts, writing, other tasks where extreme manual dexterity is essential, etc.) must be approved by GCPUD (Grant County Public Utility District) management.
- Gloves must be selected based on the task(s) being performed to ensure adequate cut, abrasion, puncture, and chemical resistance.

High-Visibility Outerwear

- All personnel are to wear orange or yellow Class II ANSI/ISEA 107-2015 high-visibility garment while onsite.
- Workers performing traffic control in daylight conditions must wear Class II outerwear (vest or shirt) with reflective tape.
- Traffic control at night requires the addition of ANSI/ISEA 107 Class E lower garment and hard hat with 12 square inches of retroreflective material placed to provide 360 degrees of visibility.



Water Safety

- Wear a life jacket and have safety rings with a rope for rescue purposes when working above water.
- WAC also requires a safety boat with operator to be present when workers are exposed to water hazards



Hearing Protection

- **Action Level:** A hearing conservation program is required when exposures reach or exceed 85 dBA TWA8.
- **Mandatory Use Thresholds:** Employees must wear hearing protection if exposed to:
 - 85 dBA TWA8 or greater.
 - 115 dBA (slow response).
 - 140 dBC (fast response) for impulse/impact noise.
- **Protection Rating (NRR):** When noise exposures equal or exceed 115 dBA (slow) or 140 dBC (fast), hearing protection must have a Noise Reduction Rating (NRR) of at least 20.
- **Training & Education:** Employers must provide training to employees exposed at or above 85 dBA TWA8, covering the effects of noise, purpose/fit/care of protectors, and audiometric testing procedures.
- **Warning Signs:** Areas with sound levels exceeding 115 dBA must be posted with warning signs.
- **Evaluation of Effectiveness:** Employers must ensure hearing protectors are appropriate for the specific noise environment, sometimes requiring more complex evaluation methods beyond just NRR



Respiratory Protection

- If it is determined that a respirator is required for the work being performed, the contractor must provide documentation that the worker has been medically qualified, fit-tested and trained.
- All respiratory protection devices must be stored, maintained, and disposed of properly.
- Employees must receive medical evaluations (to ensure they can safely wear a respirator) and annual fit testing for tight-fitting respirators.
- Respirators must be NIOSH-certified and appropriate for the hazard (e.g., N95 or P100 for dusts, specific cartridges for vapors).

Asbestos: Specific, high-level protection is required for Class I, II, and III asbestos work.

Silica: Activities listed in WAC 296-840 Table 1 require specific, often mandatory, respiratory protection.

Wildfire Smoke: Required when levels are high.

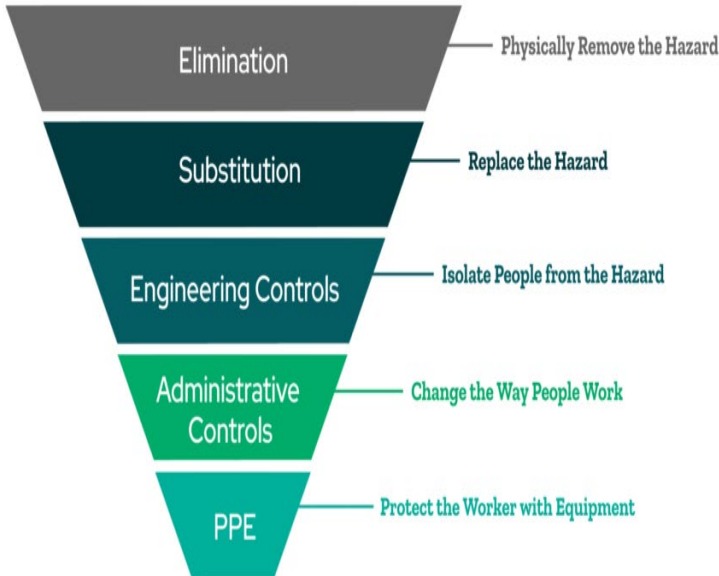
Voluntary Use: If respirators are not required but allowed, employers must ensure they do not create health hazards and provide users with the advisory information in Table 2 of WAC 296-842-11005.

COMMON NOISE LEVELS

Sound Energy Doubles Every 3 dB



Hierarchy of Controls



The best way to manage hazards is to

ELIMINATE

The last line of defense is.

PPE



Hazard Communication Plan

- A list of all hazardous chemicals (including paints, solvents, and dusts from materials) must be maintained.
- Training must be provided at the time of initial assignment and whenever a new hazard is introduced, covering detection methods, physical/health hazards, and protective measures.
- SDS must be available to workers for every chemical in the workplace.
- SDS also **MUST** be submitted to and approved by the PUD for any chemicals being brought onto a site prior to them being brought onto or stored on any GCPUD jobsite.
- A written, implemented program must be on-site, describing how SDS, labeling, and training requirements are met.
- Employers must also ensure that employees are trained on how to read labels and understand SDS, and know how to take protective measures, such as using appropriate PPE.
- Workers must be trained upon initial assignment and whenever a new chemical hazard is introduced. Training must cover:
 - The location and availability of the written program and SDSs.
 - Methods used to detect the presence or release of hazardous chemicals.
 - Physical and health hazards of the chemicals in their work area.
 - Protective measures, such as work practices and personal protective equipment (PPE).



Controlled Access Zone

Controlled Access Zone (CAZ) requirements in the Washington Administrative Code (WAC 296-155, 296-880) require clearly marked, high-visibility lines (ropes/wires) 6–25 feet from edges to restrict access to authorized personnel only. They must be supervised by a competent person and used for specific high-hazard tasks like leading-edge work or masonry.

- **Purpose:** To restrict access to authorized workers engaged in specific high-hazard tasks (e.g., masonry, leading-edge work) where traditional guardrails are not feasible.
- **Marking:** Control lines must be flagged or marked with high-visibility material at least every 6 feet.
- **Placement (Leading Edge/Roofing):** Control lines must be erected 6 to 25 feet from the unprotected edge, parallel to it, and cover the entire length of the work area.
- **Masonry Construction:** A limited access zone must be established before wall construction, extending the height of the wall plus 4 feet, located on the side opposite to any scaffolding.
- **Supervision:** A "competent person" must ensure the zone is properly installed and maintained.
- **Access Control:** Only employees actively engaged in the specific work are permitted inside the zone.

(WAC 296-155, 296-880)

*SA-DW-TSK-434-barricading a temporary hazard in non-hydro facility
SA-DW-PRG-430 Tape/Rope/Signage as Safety Barricade*



Guarding and Barricades

- All protruding reinforcing steel (rebar), onto and into which people could fall, shall be guarded to eliminate the hazard of impalement with:
 - Flat-topped rebar caps that contain a metal shank.
- All holes, gaps, and voids **2 inches or more in its least dimension** in a floor, roof, or other walking/working surface (including diamond-block-outs) shall be guarded either by hard barricade or cover that meets the following requirements:
 - **COMPLETELY** covered with 3/4" plywood or steel plate - hold twice the intended load - no gaps around cover
 - Cover is secured against displacement
 - Cover has "HOLE" spray-painted/written on it
- Always use barriers to protect workers - red/yellow tape, temporary guard rails, concrete barricades, etc.
- Tool tethers, toe boards, mesh, controlled access zones and other methods must be used and maintained to prevent items from dropping to lower levels, per the GCPUD (Grant County Public Utility District) Fall Protection Program.



Elevated Work

Fall protection is required for all personnel when performing elevated work four feet or higher.

Elevated work platforms/walking surfaces **must** have proper equipment in place.

- Access to all elevated work areas 4' and higher are to be evaluated to ensure proper fall prevention.
 - Ladders Last - Ladders are to be considered the last means of access and used only when other options are not feasible for the situation.
 - Requirements of all local, state or owner regulations must be met when addressing access to and from elevated work areas.
- Any contractor that will have employees exposed to a fall hazard of 10' or more at any point in their work will be required to submit a fall protection plan as part of their Site-Specific Safety Plan. This plan is to include methods for rescue and recovery.
- Any metal rigging equipment (shackle, wire rope, etc.) that is to be used as part of a fall protection system must be rated for the work to be performed.
- When working at height, all tools and materials are to be tethered to prevent dropping to lower levels. *For further details, see the Dropped Object Prevention section.*

For comprehensive regulations, refer to (*WAC 296-155 Part C-1 Fall Protection*) and (*WAC 296-880*).

SA-DW-PRG-090 Fall Protection Program



- All guard rail systems must have three components - a top rail, a mid-rail, and a toe board.
 - Top rail is to be 42" (+/- 3") from the walking surface and must withstand 200 lbs. of force in an outward or downward direction.
 - If cable is used, the cable must:
 - be at least 3/8" wire rope
 - be flagged at intervals no more than 6 feet apart
 - be tight with no more than 2" of deflection in any direction
 - be secured by no less than 3 cable clamps at each end
 - Mid-rail is to be set at half the distance between the top rail and the walking surface and is to withstand 150 pounds of force in an outward or downward direction.
 - The toe board is to be placed along the walking surface and at least 3.5 inches high.

For comprehensive regulations, refer to (*WAC 296-155 Part C-1 Fall Protection*) and (*WAC 296-880*).

SA-DW-PRG-090 Fall Protection Program



Personal Fall Protection

*All workers using any personal fall protection equipment and systems must be trained in the proper use of that specific equipment. Personal fall arrest equipment, anchorages and lifelines **must** meet the following minimum standards:*

- Personal fall arrest equipment (full body harness) **must** be used when working on unguarded elevations 4 feet and higher above ground level or on the working surface.
- 0-ring extensions shall not be used with a 6' lanyard.
- **ALWAYS** contact project supervision/competent person to verify acceptable anchorage points unless already labeled "anchorage point" or similar wording.
- All fall arrest equipment **must** be inspected prior to each use and inspected per the manufacturer's requirements with documentation available upon request.
- For general fall protection purposes, full body harnesses equipped with rear (back) 0-rings **must** be used.
 - In cases of ladder-climbing devices or other equipment where the manufacturer requires it, harnesses with front or shoulder-mounted 0-Rings may be required.
- Trauma straps are recommended on all harnesses to be used to prevent suspension trauma after a fall while a worker is awaiting rescue.
- **Shock absorbing** lanyards or retractable devices are required to maintain 100% Fall Protection.
- Only double-locking-type snap-hooks may be used.

For comprehensive regulations, refer to (*WAC 296-155 Part C-1 Fall Protection*) and (*WAC 296-880*).

SA-DW-PRG-090 Fall Protection Program



- Only manufacturer-designed lanyards shall be used to anchor at "foot level".
- Standard lanyards **shall not** be used in conjunction with retractable devices.
- Lanyard attachment points to anchorage points and lifeline **must** be above the D-ring unless deemed infeasible by the qualified person overseeing the fall protection activities.
- Anchors/lifelines **must** be positioned to prevent swing/ fall collisions with other obstructions.
- Anchor points must be able to support at least 5,000 pounds per person and be overhead, when possible.
- Anchor points **must** be rigged in such a way that an employee will not free fall more than 6 feet, nor contact any lower level.
- Handrails are not permitted as anchor points.
- Horizontal lifelines **shall** be designed, installed, and used only under the supervision of a qualified person.
- Lifelines and lanyards **must** be protected against being cut or frayed. Beam wraps, steel cable chokers or padding **must** be used when connecting lanyards and lifelines around sharp beams or structural shapes.
- 6' Lanyards should **only** be used when there is an 18' and greater exposure. For shorter clearances, retractable lanyards must be used.
- Retractable lifeline devices **must** limit free fall distance to **2 feet or less**.

For comprehensive regulations, refer to (*WAC 296-155 Part C-1 Fall Protection*) and (*WAC 296-880*).

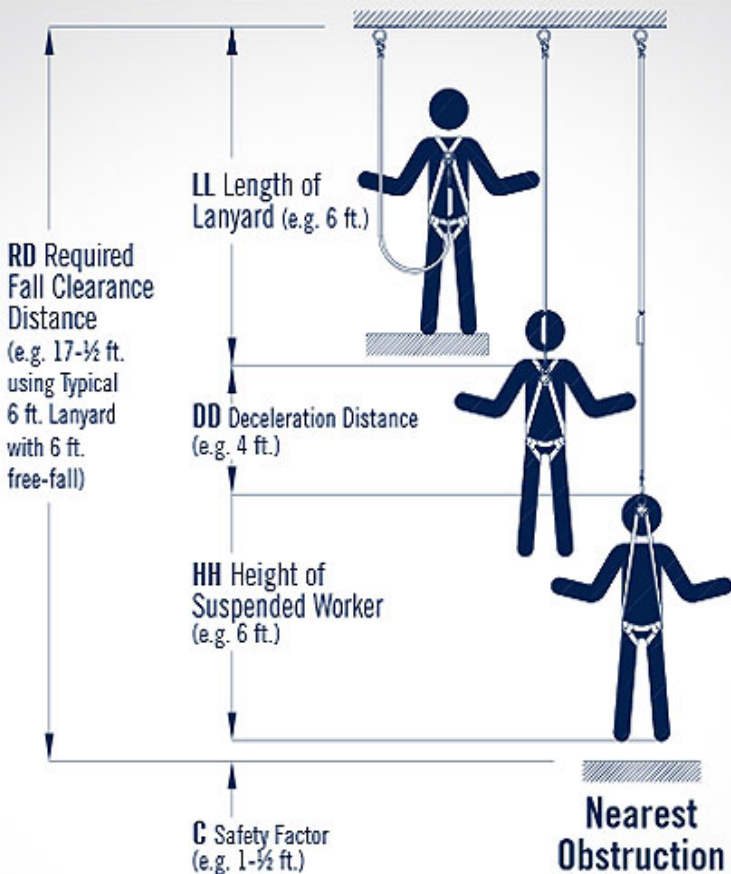
SA-DW-PRG-090 Fall Protection Program



- Never leave retractable device cables extended since this can affect the ability for the cable to retract properly. For those that are difficult to reach, attach a rope to pull down the hook to eliminate damage to the cable from weather, dirt, weld splatter, etc.
- Retractable lifelines must be rated for LEADING EDGE or SHARP EDGE use if they are exposed to those conditions.

For comprehensive regulations, refer to (*WAC 296-155 Part C-1 Fall Protection*) and (*WAC 296-880*).

SA-DW-PRG-090 Fall Protection Program



$$RD = LL + DD + HH + C$$

- 1) Add 1 ft. to **DD** for free-fall over 6 ft. up to 12 ft. or for person over 310 lbs. up to 420 lbs. with 6 ft. max. free-fall for ANSI & OSHA compliant lanyards.
- 2) Add 1.7 ft. to **DD** for Canadian CSA Z259.11-05 (E6) compliant lanyard.
- 3) D-ring slide and harness stretch factors are built into **HH** and **C**.
- 4) **DD** shown in e.g. assumes maximum allowable amounts.
- 5) See User Instruction Manual for additional information.





Preventing Slips, Trips, Falls

- Every employee/worker, including contractor employees, are expected to ensure that walking and working surfaces are safe and free of obstruction.
 - All construction waste is picked up and does not create a slip, trip, fall hazard (e.g., rolling stock, wood, plastic).
 - Always maintain clear and safe access/egress points from buildings. Clearly mark/flag areas where we expect people to walk.
 - Maintain safe walking surfaces during inclement weather conditions (water, ice, snow, mud).
 - Any change in elevation of 19 inches or more requires the use of ladder, stair, ramp, or similar device to travel from one surface to the other.

Floor, Wall Openings and Roof Work

- Every floor or wall opening from which there is a drop of 4 feet or greater **must** be "hard" barricaded, guarded or properly covered.
- Toe boards **must** be used to prevent materials or tools from falling to lower elevations. Toe boards must be constructed of sturdy material and at least 3.5" in height.
- Upright support post spacing **must not** exceed eight feet.
- The guardrail system **must** be capable of withstanding less than 2" of deflection with a force of 200 pounds in any outward or downward direction.

(WAC 296-880, 296-24)

SA-DW-PRG-090 Fall Protection Program



- ANY work (including observation or inspection) to be done on the roof will require the use of a "Roof Work Permit" that is to be completed by the subcontractor working on the roof and approved by GCPUD supervision, prior to beginning work.
- Material stored on the roof must be secured to the roof deck. All material is to be properly secured at the end of each day, and in the presence of impending high winds and storms.
- ROOF WARNING LINES - Must be used in the following manner:
 - Only when "ROOFING" is being installed - **at least 6' back from the edge.**
 - When mechanical equipment is used in "ROOFING" - **at least 10' back from the edge**
 - When "ROOFING" work is done, all other activities require that the warning line is **at least 15' back from the edge.**
 - Use stanchions 34"-39" high and support at least 161lbs of force.
- All steel cable guardrail systems must be 3/8" cable or greater with each end secured by 3 Crosby clamps. Flag the cable for visibility every approximately every 8-10'.
- **ALWAYS** guard floor openings with a hard barricade or fully cover floors, gratings, and other structures where holes are created.
- All hole covers **must** be mechanically secured to prevent accidental displacement. Hole covers must be clearly labeled "**HOLE**".
- Floor opening/hole covers **must** be capable of supporting at least twice the intended load of employees, equipment or materials that may be imposed on that cover.



- **ALL** trenches exposed to the outside public and in high traffic areas should be hard barricaded to prevent equipment and people from falling in. This may be done using jersey barriers and/or a guardrail system that can support 200 lbs. of force. Trenches inside the project perimeter that will be left open and unattended must have snow fence barricades in place (not tape).



Ladders

Ladders should be used as a last resort for access and - especially - for routine access/elevated work. Consider the use of scaffold, hoist, scissors lift or other means that provide safer platforms for activity.

- Ladders shall be inspected before each use for structural defects and shall be removed from service if any deficiencies are found. Ladders are to be removed from service if they do not have legible tags from the manufacturer. Ladders shall be free of oil, grease, and other slipping hazards.
- Ladders should be used only for the purpose for which they were designed; do not use A-frame stepladders as a straight ladder or use extension ladder sections separately. Extension ladders shall only be used for access/egress purposes.
- The top two steps of any ladder are off-limits and are not to be stood on. If these steps are needed for adequate reach, a taller ladder or other device must be used.
- Three points of contact **must** be maintained when ascending or descending. Tools and materials are to be carried in a backpack, raised, or lowered in a canvas bag, by means of wheel and rope, or by other mechanical means that keep the hands free for climbing.
- Straight (extension) ladders **must** be secured and used at an angle of 4:1. The top of the ladder must extend at least three feet above the top landing. Fall protection is required once the work area is reached if the area is not otherwise protected.
- Metal ladders are not to be used on GCPUD (Grant County Public Utility District) jobsites - except for small 2/3-step ladders and certain small work platforms.

- If an extension ladder cannot feasibly be tied off, then it must be held at the base by a second person during ladder use. This includes setting up and taking down the ladder when it is being tied or untied.



LADDER SAFETY – THREE POINTS OF CONTACT

Three Points of Contact

Always maintain three points of contact when climbing a ladder.

2 hands + 1 foot

2 feet + 1 hand

Avoid carrying tools or materials in your hands while climbing

Use tool belts or hoist systems instead



Reminding your team of this simple rule can prevent life-changing injuries



Scaffolding

- Anyone in the act of building or dismantling scaffold must utilize fall protection when their feet are six feet or higher off the ground.
- All scaffolding **must** be inspected, erected, moved, dismantled, or altered by or under the direct supervision of a competent person.
- Employers are to provide proof of scaffold user training for their employees/ workers.
- All scaffolds shall display a scaffold tag to indicate the condition of scaffold.
- A competent person **must** inspect scaffolds every day before use. If used for more than one shift, the scaffold must be inspected before each shift. Scaffold tag colors are indicated as follows:
 - **RED-DANGER-DO NOT USE SCAFFOLD.** To be used on incomplete or erection in progress scaffold.
 - **YELLOW-CAUTION.** Scaffold is safe to use, but personal fall arrest equipment is required. Scaffold deficiency must be identified on tag or sign. Example: handrail being partially omitted because of piping obstruction.
 - **GREEN- SCAFFOLD IS SAFE FOR USE.** Personal fall arrest equipment is not required if scaffold working surface is fully planked, hand railed, mid-railed and toe boarded.
- Toe boards are required for scaffolds of any height where there is possibility of overhead hazards and always at 10' or higher.
- Mobile scaffolds must have the wheels locked when the scaffold is in use. "Surfing" the scaffold where the user moves the scaffold while on the scaffold is not permitted without a written and approved variance.



Work Platforms

- **Elevating Work Platforms (Aerial Lifts/Booms):**
 - Must meet [ANSI A92 standards](#) (e.g., A92.2-2001 or A92.2-1969) based on manufacturing date. Operators must not sit or climb on guardrails and must wear a full-body harness.
- **Fall Protection:** Generally required for platforms if a fall hazard of 4 feet or more exists (WAC 296-880), with specific requirements for boom-supported lifts regardless of height.
- **Scaffolding/Platforms:** Must be able to support their own weight and at least 4 times the maximum intended load (WAC 296-874). Planking must be secure, and platforms fully planked.
- **Operational Safety:** Load limits specified by the manufacturer must not be exceeded, and platforms must be inspected regularly.

Stilts

There shall be NO use of stilts on any GCPUD project.



Aerial Lifts

- **ALWAYS** complete a documented lift inspection before each use.
- Employees using aerial lifts **must** be trained in their use and have a copy on file in the office.
- All lifts must be equipped with crush protection for occupants of the basket. This may take the form of a "crash bar" over the control panel, "kill switch" or other similar device that acts to stop movement of the lift in the event the worker becomes trapped.
- All workers in the basket must use 100% tie-off when operating any boom lifts, scissor lifts, man-baskets, snorkels, cherry pickers, etc. at any height. The gate or chain must be closed while the lift is in operation.
- Fall protection lanyards must be connected to the manufacturer's designated anchorage point in the basket.
- Utilize the manufacturer's guidelines for appropriate fall protection /fall restraint methods.
- Standard lanyards must not be more than four feet in length. Six-foot lanyards are not allowed to be used in any aerial lift.
- **NEVER** work off handrails, etc., to raise your work position. A manufacturer's approval is required for extraordinary circumstances.



- Whenever an aerial lift is being moved:
 - The worker moving the lift must be in the basket with proper fall protection and not walking alongside the lift as it is moved. Exceptions may be made for certain situations but must be coordinated with the GCPUD onsite project team, prior to beginning operation.
- Materials or tools that are hoisted/lifted on any aerial lift must be properly secured per the manufacturer's recommendation. guidelines. Weight limits and other manufacturer guidelines on any lift must be followed.

Dropped Object Prevention

Every effort must be made to prevent items to drop onto workers at lower levels by the following means, at a minimum:

Nets & Mesh

- Debris nets used to prevent items from dropping to lower levels must be installed properly, per manufacturer direction.
- Material that falls into netting must be cleared on a regular basis.
- Mesh connected to guard rails and cables must be properly secured to prevent damage from wind or other impact.
- Mesh connected to scaffold must have engineering to show forces created by wind and that the scaffold system can withstand these extra forces.
- The basket of aerial lift is outfitted with appropriate nylon mesh or metal grid to prevent objects from falling out of the basket to a lower level.



Drop Zone

- At the edge of elevated floors, a zone is to be established ten feet back from the edge using paint, tape, or other means.
- All material staged or stored in the Drop Zone must not be stacked higher than the guard rail at the edge.
- All tools used in the Drop Zone are to be tethered either to the worker or to another stable location to prevent dropping the object to lower levels.
- Materials that can be tethered shall be tethered to a suitable structural anchor point.



Trenching / Excavation

- **Competent Person:** A designated person must inspect trenches daily, before work, and after rainstorms to detect hazardous conditions.
- **Protective Systems:** Trenches 4 feet or deeper require sloping, benching, or shield systems to prevent cave-ins.
- **Soil Classification:** Soils must be classified (Type A, B, or C) to determine the appropriate protective system.
- **Access/Egress:** Trenches 4 feet or deeper require a ladder, ramp, or stairway, with the ladder extending at least 3 feet above the top.
- **Hazardous Atmospheres:** Testing is required for trenches >4 feet deep where oxygen deficiency or hazardous atmospheres could exist.
- **Surface/Underground Hazards:** Underground utilities must be located before excavation. Surface encumbrances (trees, boulders) must be removed or supported.
- **Excavation Plan:** A written, site-specific safety plan is often required for significant excavations

Hot Zone

The area within 15 feet of either side of a buried utility is considered the Hot Zone.

- All soils are to be treated as Type C unless adequate reason and evidence can be shown to treat it as Type A or B through documented testing.
- Benching is not permitted in Type C soils.



- The soil can NOT be classified as Type A if it is subject to vibration from heavy traffic, pile driving, or similar effects; or if the soil has been previously disturbed.
- When an excavation reaches **four feet or deeper**, protective measures must be put in place - trench box, sloping, shoring, benching, etc. **Air monitoring must also be performed beginning at four feet or more in depth.**
- The permit must be at the site of activity in the permit stand and made available for review upon request.
- Access in a trench must be maintained within 25 feet of any worker in the trench.
- Fall protection must be provided for all excavations deeper than six feet.
- At a minimum, snow fence protection is required for barricading/marketing excavations and/or trenches at the end of each shift or when the excavation/trench will remain "open" for a length of time without supervision.
- Excavations that are 20' or deeper must be engineer designed for the protective method to be used (sloping, shoring, trench box, combination, etc.).
- When excavation conditions or methods change {after rainstorm, uncover unknown utility), permit is to be reviewed and re-authorized by the competent person before work continues.
- During backfill, utility marking tape is to be placed two feet above the line. Tracer wire or RFID tags are used to mark the lines, appropriate to project requirements.



Utility Marking Color Code

White	PROPOSED EXCAVATION
Fluorescent Pink	TEMPORARY SURVEY MARKINGS
Red	ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES
Yellow	GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
Orange	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT
Blue	POTABLE WATER
Purple	RECLAIMED WATER, IRRIGATION AND SLURRY LINES
Green	SEWERS AND DRAIN LINES



Lockout/Tagout

Key requirements include using durable, standardized locks/tags, de-energizing all energy sources, verifying isolation, and ensuring only authorized employees remove their own locks, with specific rules for group LOTO.

Core LOTO Requirements:

- **Written Program:** A documented, site-specific program must be implemented for controlling hazardous energy.
- **Authorized Employee:** Only trained employees can apply devices.
- **Device Standards:** Locks/tags must be durable, standardized by color/size, and identify the person applying them.
- **Procedures:**
 - **Notify:** Notify affected employees before starting.
 - **Shutdown:** Turn off and shut down machinery.
 - **Isolate:** Operate energy-isolating devices (breakers, valves) to isolate equipment.
 - **Lock/Tag:** Apply locks and tags to each energy-isolating device.
 - **Stored Energy:** Release, disconnect, or restrain residual energy (e.g., hydraulic pressure, springs).
 - **Verify:** Verify isolation by attempting to start the equipment.



- Group Lockout: When more than one person is involved, each authorized employee must attach their personal lock to the group device.
- Removal: Only the employee who applied the lock/tag can remove it (with specific exceptions for supervision).



Confined Spaces

What is a Confined Space?

It is a space that has all the following characteristics:

- Limited means for entry or exit.
- Adequate size and configuration for a person to enter.
- It is not designed for continuous occupancy.

What makes it a Permit Required Confined Space?

A space that meets all requirements for a confined space, AND it has one or more of the following characteristics:

- Contains or has the potential to contain a hazardous atmosphere.
- Contains a material that has the potential for engulfing an entrant.
- It has converging walls, a floor that slopes downward or a configuration that could trap or asphyxiate an entrant.
- Contains other recognized serious safety or health hazards (i.e., an electrical hazard that can't be locked out, moving machinery, etc.).



Key Requirements Include:

- **Hazard Evaluation:** Identify all permit-required spaces, including manholes, vaults, and pits.
- **Permit Program:** Implement a written program that includes a written permit, atmospheric testing, and rescue/emergency services.
- **Atmospheric Testing:** Test for oxygen content, flammable gases/vapors, and toxic contaminants before and during entry.
- **Ventilation:** For new sewer systems, use forced ventilation for 5 minutes prior to entry and continuously while inside.
- **Attendant & Rescue:** Station an attendant outside the space who maintains communication, and ensure rescue services are readily available, preferably using non-entry rescue.
- **Training:** All employees entering, attending, or supervising must be trained in procedures, hazards, and equipment.

NOTE:

For construction-specific rules regarding new sewage systems, see WAC 296-155-20307, which allows for specific, simplified ventilation and attendant procedures



Machine Guarding

Machine guarding requirements for construction work in Washington mandate that all power-operated tools and dangerous, moving, or exposed machine parts (gears, belts, shafts) be equipped with durable, securely fastened guards. Guards must prevent contact with hazards, not create new ones, and comply with WAC 296-806.

- **Protection:** Guards must prevent hands or body parts from reaching into danger zones.
- **Secure Fastening:** Guards must be securely attached and not easily removed.
- **Specific Hazard Control:** Point of operation, nip points, and rotating parts must be covered.
- **Safety Controls:** Power-driven equipment must have accessible, red emergency stop controls.
- **Maintenance:** Machinery must be maintained in a safe condition, with power locked out during repairs.
- **Anchoring:** Fixed machinery must be secured to prevent moving or walking.

NOTE:

For specific machine types, see WAC 296-806-40504 for detailed regulations.



Vehicle and Equipment Safety

- Anyone operating mobile, motorized equipment/ vehicles must possess a valid driver's license, plus present proof of safety and practical use training for that equipment.
- Operators involved in incidents while operating equipment must provide a CR (Condition Report) of the incident. In some cases, an operator involved in an incident may be removed and not be allowed to return to a GCPUD (Grant County Public Utility District) project.
- Anyone who rides in a vehicle equipped with a seat belt **must** wear it.
- Materials that overhang the sides or ends of a truck 3' or more **shall** be "flagged" appropriately.
- Cell phones/radios shall not be used while driving. **Stop or pull over**, when it is safe, then use your cell phone or radio.
- Texting while driving is prohibited.
- Jumping on or off equipment or vehicles, while moving, is prohibited.
- While riding or driving any motorized industrial vehicle, such as golf carts, gators, etc., basic PPE **must** be worn. The industrial vehicle **must** always be driven in a safe manner abiding by all site traffic rules.
- Only designated vehicles shall be used for the transportation of personnel. Mobile cranes, forklifts, etc. shall not qualify as personnel transportation vehicles. Golf carts, UTVs and "Gators" are limited to transporting the number of individuals who can be properly seated and should be equipped with a highly visible flag and/or strobe to increase vehicle visibility. **Employees are not to ride in the back of a truck.**



- Follow jobsite speed limits.
- No personal vehicles are allowed on the building pad or inside the building.
- All bi-directional machines, such as rollers, compactors, front-end loaders, bulldozers, and similar equipment, shall be equipped with an operating horn & back-up alarm, distinguishable from the surrounding noise level. The horn shall be maintained in an operative condition.
- A ground spotter shall be used when operating in a blind spot and/or highly congested areas. If the alarm devices are not working, a ground spotter may be used.
- When parking is allowed on the construction site, it is a privilege. GCPUD assumes no responsibility for lost, stolen or damaged vehicles.
- When parking on unlevelled surfaces, be sure to put the vehicle in "PARK" and apply the parking brake fully. After exiting the vehicle, place at least one-wheel chock under the downhill side of the rear wheel.
- All mobile, motorized equipment is to be outfitted with a fire extinguisher within easy access of the operator and maintained.
- When lifting materials with a fork truck (standard or boom), material shall not be hung directly on the fork (called "Free Rigging"). If items are to be suspended under the forks, they must be connected to a hook on the mast (if provided by the manufacturer) or from an approved lifting attachment.



Cranes

Assembly/Disassembly Responsibilities:

- All assembly/disassembly (ND) work must be directed by an ND Director. The ND Director must meet the criteria for both a "Competent Person" and a "Qualified Person", which are defined terms; or must be a "Competent Person" assisted by a "Qualified Person".
- The employer must follow manufacturer procedures when using synthetic slings during assembly or disassembly rigging (even when the employer has developed its own ND procedure as an alternative to the manufacturer's other procedures).
- The ND Director must also address hazards associated with the operation, including 12 specified areas of concern:
 - Site and ground conditions
 - Stability upon pin removal
 - Blocking material
 - Snagging
 - Proper location of blocking
 - Struck by counterweights
 - Verifying assist crane loads
 - Boom hoist brake failure
 - Boom & jib pick points
 - Loss of backward stability
 - Center of gravity
 - Wind speed and weather

(WAC 296-155 Part L)

SA-DW-PRG-260-overhead and gantry cranes

SA-DW-LST-274 – ASME lifting standards

Standard Hand Signals – SA-DW-APP-273

SA-DW-PRO-272 – verifying a contractor's crane, derrick, or lifting device operator



Inspection:

Upon completion of assembly, but before use, the equipment must be inspected by a "Qualified Person" to ensure that it is configured in accordance with the manufacturer's equipment criteria. If these criteria are unavailable, the employer's "Qualified Person", with the assistance of a registered professional engineer, if necessary, must develop the appropriate configuration criteria and ensure that these criteria are met.

General Requirements:

- The swing radius of the crane is to be identified with RED Danger tape during all operation of the crane.
- A crew member who moves out of the operator's view to a location where the crew member could be injured by movement of the equipment (or load) **MUST** inform the operator before going to that location. The operator must not move the equipment until that crew member has informed the operator that he/she has relocated to a safe position.
- Employees must never be under the boom or jib when pins (or similar devices) are removed, unless it is required by site constraints and procedures and training have been implemented that minimize the risk of unintended movement and the duration of exposure under the boom.
- Component weights must be readily available for all components to be assembled.
- Pins may not be removed during disassembly when the pendants are in tension.

(WAC 296-155 Part L)

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- Booms supported only by cantilevering must not exceed manufacturer limitations or RPE limitations, as applicable.
- Component selection and equipment configuration that affects the capacity or safe operation of the equipment must be in accordance with manufacturer's requirements and limits or RPE requirements and limits, as applicable.
- Only workers holding a valid National Commission for the Certification of Crane Operators (NCCCO) card or equivalent (dependent on state or local requirements) can operate cranes on GCPUD projects.
- All operators must have documented employer evaluations for the crane type they are operating.

Critical Lifts:

A Critical Lift Plan is to be submitted to GCPUD and approved before starting the lift if any of the following conditions apply to the lift:

- The lift is being made over or near live processing equipment and the weight is greater than ten tons.
- The combined weight of the load exceeds **75% of the adjusted rated capacity of the crane.**
- The item to be lifted weighs more than 20 tons.
- All lifts where more than one piece of equipment (crane, forklift, etc.) is used.

(WAC 296-155 Part L)

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- Any lift is deemed special, i.e., glass-lined equipment.
- A lift, which exceeds 95% of the adjusted rated capacity of the crane, will require the review and approval of a qualified professional engineer.

Outriggers and Stabilizers:

When outriggers or stabilizers are used or are necessary considering the load to be handled and the operating radius:

- Outriggers and stabilizers must be fully extended or, if permitted by manufacturer procedures, deployed as specified in the load chart.
- Outriggers must be set up to remove equipment weight from the wheels, except for locomotive cranes.
- Outrigger floats, if used, must be attached to the outriggers; stabilizer floats, if used, must be attached to the stabilizers.
- Each outrigger or stabilizer must be visible to the operator or to a signal person during extension and setting.
- Outriggers and stabilizer blocking must be placed under the float/pad of the jack or, if there is no jack, under the outer bearing surface of the outrigger or stabilizer beam. Blocking must also be sufficient to sustain the loads and maintain stability and must be properly braced.

(WAC 296-155 Part L)

SA-DW-PRG-260-overhead and gantry cranes

SA-DW-LST-274 – ASME lifting standards

Standard Hand Signals – SA-DW-APP-273

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Wind:

Winds speeds must be continuously monitored. When winds reach 25 mph, crane operations must pause and be evaluated to continuing work. The crane operator shall reference the manufacturer guide as to when windy conditions will stop work.

Signal Person:

- Is required when the point of operation is not in full view of the operator.
- The operator's view is obstructed in the direction the equipment is traveling.
- Either the operator or the person handling the load determines that a signal person is needed because of site- specific safety concerns.

NOTE:

Employers must make documentation of the signal person's qualifications available at the worksite, either in paper form or electronically. The documentation must specify each type of signaling (e.g., hand signals, radio signals, etc.) for which the signal person is qualified under the requirements of the standard.

(WAC 296-155 Part L)

SA-DW-PRG-260-overhead and gantry cranes

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SA-DW-PRO-272 – verifying a contractor's crane, derrick, or lifting device operator



Rigging:

- All metal rigging components (shackles, chain, hooks) must be American made. Wire Rope clips are made of drop-forged steel.
- All rigging must be done by a "Qualified Rigger", who has a valid training card on file with the project.
- All rigging equipment must be inspected prior to each use. Damaged or defective rigging or rigging that is missing tags are to be removed from service. Rigging equipment is to be removed from the lifting area when not in use.
- Tag lines are to be used to control suspended loads. No one is to be under suspended loads.
- Synthetic slings must be protected from abrasive, sharp or acute edges, and configurations that might reduce the sling's rated capacity.
- All hooks must have gates that are properly closed to prevent materials from sliding out of the hook.

Exceptions:

- Chain hooks used to adjust chain length.
- Shake-out hooks that are used to unload and sort steel members.
- Use of wire to hold a gate open only for steel-erection activities (referred to as "mousing")

(WAC 296-155 Part L)

SA-DW-PRG-260-overhead and gantry cranes

SA-DW-LST-274 – ASME lifting standards

Standard Hand Signals – SA-DW-APP-273

SA-DW-PRO-272 – verifying a contractor's crane, derrick, or lifting device operator



Electrical

Key rules include grounding, overcurrent protection, secured equipment, and using approved materials

- **NEVER** work on electrical circuits unless authorized/qualified.
- All extension cords will be of the 3-prong type rated for extra heavy use and be not less than 12-gauge wire.
- Workers are to inspect cords prior to use.
- Damaged cords are to be immediately removed from service.
- Power strips not rated heavy duty for use in construction are not allowed.
- Extension cords and temporary lighting should be hung overhead to reduce potential tripping hazards. Only non-conductive material shall be used to suspend such cords and must be protected from sharp objects and pinch points, such as windows or doorways.
- Temporary lights are to be suspended by non-conductive (plastic, wood or coated wire) material. Every effort should be made to prevent damage to and contact with the lamp of the temporary light.
- Outlets, to which extension cords are plugged, must be of the GFCI protected type, branch circuit protected by a GFCI breaker or protected by a portable GFCI device placed between the outlet and extension cord.
- Only certified electricians shall work on any electrical device greater than 50 volts.

(WAC 296-46B, 296-155)

*PP-HYD-SAF-100 – GCPUD Power Production (ESP)
Power Production - Energized Electrical Work Permit
SA-DW-PRG-060 Assured Grounding Program*



- Breaker panel doors are to be kept shut and properly locked and labeled.
- Live work on electrical systems must be a last resort. WAC 296-45 and NESC must be strictly adhered to during this work.
 - Live parts must be properly guarded from accidental contact.
- Clear working spaces are required around electrical equipment, generally requiring 3 feet of clearance for equipment under
- Electrical contractors and workers must hold appropriate certifications, and projects often require inspections.

(WAC 296-46B, 296-155)

*PP-HYD-SAF-100 – GCPUD Power Production (ESP)
Power Production - Energized Electrical Work Permit
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Power Lines

Table A-Minimum Clearance Distances

VOLTAGE (nominal, kV, AC)	MINIMUM CLEARANCE DISTANCE
Up to 50 kV	10'
50- 200 kV	15'
200 - 350 kV	20'
350-500 kV	25'
500 - 750 kV	35'
750 - 1000 kV	45'
Over 1000 kV	(As established by the utility owner/ operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution)

See OSHA regulations for further information

Power line requirements in the Washington Administrative Code (WAC) for construction focus heavily on safety clearances, mandating a minimum 10-foot distance for lines up to 50 kV. Specialized rules require qualified personnel for energized work, specific temporary power installation protocols, and proper grounding procedures to ensure worker safety.

Minimum Clearance:

- **50 kV or less:** 10 feet minimum clearance for equipment/personnel.
- **Over 50 kV:** 10 feet + 0.4 inches for every 1 kV over 50 kV.
- **Insulated Lines:** Lines less than 300 volts (insulated) require 3 feet minimum separation.

(WAC 296-46B, 296-155)

*PP-HYD-SAF-100 – GCPUD Power Production (ESP)
Power Production - Energized Electrical Work Permit
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Temporary Power Service:

- General contractors can install temporary, preassembled pole-mounted services (up to 200 Amps, 250 Volts).
- Must obtain an electrical work permit and inspection prior to energizing.

Qualified Personnel:

- Only qualified employees familiar with specialized precautionary techniques, PPE, and insulation materials may work on or near energized circuits.

Materials Handling:

- Materials or equipment must not be stored within 10 feet of energized lines (50 kV or less).

(WAC 296-46B, 296-155)

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Hot Work

Hot work requirements for construction in Washington mandate that employers prevent fire hazards by designating safe areas, removing combustibles, or using protective shields. A written hot work permit system is required for operations that generate sparks, heat, or open flames, ensuring fire watch and pre-work safety checks are completed.

Key Washington standards include:

- **Designated Areas:** Hot work should be done in designated areas free of fire hazards.
- **Permit Requirement:** A hot work permit is required prior to beginning operations near potential hazards, documenting that fire prevention measures are in place.
- **Fire Protection:** If work cannot be moved to a safe area, combustibles must be moved or shielded, and a fire watch may be necessary.
- **Equipment Check:** Employees must check equipment (welding, cutting, grinding) to ensure it is in good working condition.
- **Confined Spaces:** Hot work in confined spaces is prohibited until a authorized person has verified safe conditions.
- **Roofing Operations:** Specifically, roofing work with heat-producing equipment requires compliance with specialized fire safety rules, including having a fire extinguisher available.

(WAC 296-56)

SA-DW-PRG-140 Hot Work Program



Fire Safety

Fire safety requirements for construction work in Washington are primarily governed by WAC 296-155 Part D (Fire Protection and Prevention) and WAC 51-54A Chapter 33 (Fire Safety During Construction and Demolition). These standards mandate specific safeguards to protect life and property from fire hazards on active job sites.

Key Fire Protection:

- **Water Supply:** A temporary or permanent water supply of sufficient volume, duration, and pressure must be made available as soon as combustible materials accumulate.
- **Fire Extinguishers:**
 - One 2A-rated extinguisher must be provided for every 3,000 square feet of protected building area.
 - Travel distance to the nearest extinguisher must not exceed 100 feet.
 - Extinguishers are required at each stairway on all floor levels where combustibles are present.
- **Standpipes:** In structures requiring standpipes, they must be brought up as construction progresses and maintained in a state ready for fire department use.
- **Alarm Systems:** An alarm system (e.g., telephone, siren) must be established to alert employees and the local fire department in an emergency.
- **Fire Cutoffs:** Fire walls and exit stairways must be given construction priority. Fire doors with automatic closers should be hung as soon as practical.

(WAC 296-155-260)

SA-DW-PRG-100 Fire Prevention Program



Fire Prevention and Site Safety:

- **Site Safety Plan:** A written site safety plan is required, documenting fire watch training, emergency reporting procedures, and the location of fire protection equipment.
- **Fire Watch:** A fire watch must be provided during non-working hours for:
 - New construction exceeding 40 feet in height.
 - Multistory construction exceeding 50,000 square feet per story.
- **Hot Work:** Special precautions are required for welding and cutting, including moving combustibles 35 feet away or shielding them with fire-resistant covers.
- **Combustible Storage:**
 - Materials must be removed / disposed of as soon as reasonably possible to minimize fire spread and allow firefighting access.
 - Outdoor storage of combustibles must be at least 10 feet away from a building.
 - Clearances of 36 inches must be maintained between stored material and sprinkler deflectors.



Compressed Gas Cylinders

Compressed gas cylinders in Washington construction must be stored upright in well-ventilated, dry areas, secured by chains or stands, and separated from combustible materials. Valve caps must be in place unless in use. Cylinders must be moved by tilting and rolling on their bottom edges.

Key requirements include:

- **Storage and Handling:** Keep away from heat sources like radiators and secured against falling. Cylinders in use should be secured to prevent tipping but are not considered "in storage".
- **Transport:** Cylinders must be secured in a vertical position during transport via vehicle.
- **Separation:** Oxygen cylinders must be separated from fuel-gas cylinders (like acetylene) by at least 20 feet or a noncombustible barrier at least 5 feet high.
- **Labeling and Maintenance:** Cylinders must be legibly marked to identify contents. Valves must be closed when not in use.
- **Hoisting:** When lifting, use a cradle or pallet; do not use magnets or choker slings.
- **Defective Cylinders:** Do not use frozen cylinders. Use warm, not boiling, water for thawing.



Tool Use

Tool use requirements in Washington construction work (WAC 296-155) mandate that all hand and power tools—employer or employee-provided—must be in safe, serviceable condition, inspected before each shift, and used only for their designed purpose. Key regulations include maintaining safeguards, proper controls, and removing defective tools.

Key Tool Safety Requirements:

- **Inspection & Maintenance:** Tools must be inspected before each work shift, ensuring guards are in place, handles are solid, and controls function properly.
- **Defective Tools:** Tools that are damaged, have chipped impact surfaces (mushroomed), or are otherwise unsafe must be immediately removed from service and tagged or locked out.
- **Safety Guards:** Power-operated tools must be equipped with guards, particularly saws, which must have functional lower guards that automatically return to the covering position.
- **Employee Protection:** Workers must be trained and authorized to operate equipment.
- **Specific Tools:** Specialized tools like powder-actuated tools require daily inspections and proper PPE.
- **Welding/Electrical:** Specific safety requirements exist for electric tools and welding equipment.



Silica Protection

Washington State, silica protection requirement rules require employers to protect workers from respirable crystalline silica through specific exposure limits, engineering controls, and administrative plans.

Core Exposure Limits:

- **Permissible Exposure Limit (PEL):** Employers must ensure no worker is exposed to more than 50 micrograms per cubic meter of air as an 8-hour time-weighted average (TWA).
- **Action Level (AL):** Corrective measures and monitoring are triggered at 25 micrograms per cubic meter of air as a TWA.

Specified Exposure Control Methods (Table 1):

- Employers strictly follow the engineering controls, work practices, and respiratory protection mandated for 18 specific tasks (e.g., stationary masonry saws, jackhammers, handheld grinders).
- If Table 1 is followed fully, employers are not required to conduct air monitoring to verify compliance with the PEL.

Alternative Exposure Control Methods:

- If a task is not on Table 1 or the employer cannot follow the table's controls, they must perform an **Exposure Assessment**.
- This involves measuring worker exposure using either a performance option (objective data) or a scheduled monitoring option.



Key Administrative Requirements:

- **Written Exposure Control Plan:** Every employer must have a written plan describing tasks with silica exposure, engineering controls, and housekeeping measures. For construction, the plan must also include procedures to restrict access to high-exposure areas.
- **Competent Person:** A designated individual must be capable of identifying silica hazards and authorized to take corrective action.
- **Housekeeping Restrictions:** Dry sweeping and dry brushing are prohibited where they contribute to exposure, unless safer methods (like HEPA vacuums or wet sweeping) are unfeasible.
- **Medical Surveillance:** Employers must provide medical exams at no cost to workers required to wear a respirator for **30 or more days per year**.



Incident Reporting

Personal injuries, property damage or loss, environmental and high potential "close call" incidents must be reported to GCPUD Safety Department immediately.

The incident investigation process and appropriate corrective actions must be initiated immediately after the event area has been made "safe". The initial "fact finding" aspects of the report must be submitted to the district representative **within 24 hours** after the incident.

There are 8 main categories of incidents that require reporting:

- Employee personnel injury/illness incidents (first- aids, medical aid/OSHA recordable and lost time)
- Property damage and loss
- Environmental incidents (chemical leaks and spills)
- Subcontract employee/injuries/incidents/ illnesses
- Vehicle accident reporting
- Theft/Vandalism/Harassment
- Workplace Violence
- Near Miss/Close Call
- All incidents regardless of severity **MUST** be **REPORTED** to the **DISTRICT REPRESENTATIVE** assigned to the project. There are **NO EXCEPTIONS** to this expectation.



Substance Abuse

In accordance with the Drug Free Workplace Act of 1988, GCPUD must maintain a drug free workplace. Thus, the unlawful manufacture, possession, distribution, transfer, purchase, sale, use, or being under the influence of illegal drugs or alcohol while on GCPUD projects or property, or while operating a vehicle or equipment is prohibited.

I acknowledge that a Substance Abuse Policy and Enforcement Program is in effect on this job site and that, as a condition of employment, I must comply with the provisions of this Policy and shall abide by the rules and procedures specified for enforcement. Accordingly, I understand and agree to abide by the following statements:

- No worker may be under the influence of any illegal drug or alcohol while in the workplace, while on duty, or while operating a vehicle or equipment.
- No employee may possess or use illegal drugs while on GCPUD projects or property, while on duty, or while operating a vehicle or machine.
- Employees may use physician prescribed medications, provided that the use of such medication does not adversely affect the job performance or the safety of the employee or any other individuals in the workplace.
- GCPUD reserves the right to assess, under applicable state and federal law or third- party contractual or regulatory compliance obligations, whether such substance does not adversely impact the safety of the employee or others.



- All workers are subject to the drug testing requirements contained within the Substance Abuse Policy and Enforcement Program and recognize that as a condition to my involvement on this project, I will be required to undergo and successfully pass drug testing in accordance with any applicable laws, as follows:
 - Before or at the time of my hiring or enrollment
 - on a random basis
 - for reasonable cause
 - after an injury or incident
- While my cooperation is voluntary, I understand that my failure to cooperate fully with the drug testing procedures, my refusal to submit to an alcohol or drug test, a positive test result, or any violation of the Substance Abuse Policy and Enforcement Program shall be sufficient cause for my expulsion from this job site.

This document does not supersede other job site rules but is in addition to them. In the event of a conflict, the more restrictive rule must be complied with.