



# **Employee Safety Handbook**



**Safe Work Practices, Rules,  
and Procedures to Follow**



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## Company Policy

All TRICO Companies, LLC employees shall work cooperatively in the proactive management of safety and health concerns.

- ◆ Safe work practices are mandatory!
- ◆ Hazards shall be identified as part of the daily work process.
- ◆ Employees shall be provided with the knowledge necessary for the safe operation of all vital tools and equipment.
- ◆ If you are unsure about safety or how to go about doing a task in a safe manner, contact the site Superintendent.
- ◆ Safety is more than an obligation, it is a “condition of employment”, and un-safe acts will not be tolerated!

## TRICO's Core Values

TRICO TOP PRIORITIES - REQUIREMENTS:
SAFETY
THRILL THE CUSTOMER
PROFITABILITY
BUSINESS DEVELOPMENT
CONFIDENTIALITY

- ◆ Code of Conduct
  - ❖ Respect
  - ❖ Excellence
  - ❖ Customer Service
    - External Customer (Owners, Subcontractors, the Public)
    - Internal Customer (TRICO peers)

## Program Overview

- ◆ Refer to the Employee Health and Safety Manual for full detail on TRICO's safety policies. This handbook provides key insights and explains typical Need-To-Know safety requirements you may be exposed to every day.
- ◆ All Employees are encouraged to familiarize themselves with TRICO's complete Employee Health and Safety Manual located at the TRICO Office and the Project Site.
- ◆ TRICO's safety program is modeled after requirements of Washington Industrial Safety and Health Act (WISHA), Division of Occupational Safety and Health (DOSH), and Occupational Safety and Health Administration (OSHA) – all of which have their requirements and additional information available online.



# Safety Responsibilities

**Management shall establish, supervise and enforce:**

- ◆ A safe and healthy working environment.
- ◆ An Employee Health and Safety Manual.
- ◆ Training programs to improve the safety knowledge, skills and competencies of all employees.

**Management shall:**

- ◆ Support safety efforts through example.
- ◆ Provide budget and personnel to carry out occupational health and safety activities.

**Supervisors shall:**

- ◆ Enforce safety policies.
- ◆ Monitor proper care and use of PPE.
- ◆ Identify and Eliminate Job Hazards.
- ◆ Provide information and training to employees.
- ◆ Conduct Weekly Safety Meetings & Inspections.
- ◆ Maintain CPR & First Aid Certification.
- ◆ Manage subcontractors in all aspects of safety.

## **Employees shall:**

- ◆ If you don't know, ask!
- ◆ Attend weekly safety meetings & ensure your attendance has been documented.
- ◆ Study and observe all safety standards.
- ◆ Apply the principles of accident prevention in their daily work.
- ◆ Use proper safety devices and protective equipment as required.
- ◆ Hard Hats, safety glasses, work boots and high-vis are 100% mandatory at all times.
- ◆ Immediately report injury, illness or unsafe conditions or hazards.
- ◆ Comply with all construction safety policies.
- ◆ Don't take short cuts on safety.
- ◆ Clean up your work areas and maintain an orderly work area.

## Employee Safety Training

- ◆ It's the responsibility of the company to provide required training to all employees regarding safety. It's the responsibility of the employee to actively participate, learn and attend all offered training.
- ◆ Employees are encouraged to seek additional training opportunities and contact their supervisor to discuss such opportunities.
- ◆ All new employees shall be given an Employee Safety Orientation.

## Workplace Violence

- ◆ All employees have the right to work in an environment free from physical violence, threats and intimidation.
  
- ◆ TRICO prohibits the following:
  - ❖ Use, possession or sale of any weapon on any TRICO projects.
  - ❖ Refusing to submit to an inspection or investigation requested by the company.
  - ❖ Verbal or physical threats.
  - ❖ Fighting.
  
- ◆ Any employee that witnesses an incident relating to workplace violence must report the incident to his/her supervisor promptly.
  
- ◆ TRICO has Zero Tolerance for retaliation against those who witness, report or take part in an investigation.

## Fire Prevention

- ◆ Know where fire extinguishers are located.
- ◆ Be familiar with proper use of a fire extinguisher.
- ◆ Know emergency egress routes.
- ◆ Learn the classification of fires and which extinguishers in the work area are appropriate.
  - ❖ Class A – Ordinary combustible materials such as wood, paper or fabrics, where wetting and cooling is the method of extinguishment.
  - ❖ Class B – Flammable petroleum products or other flammable liquids where oxygen must be excluded for extinguishment.
  - ❖ Class C – Fires in or near energized electrical equipment where, because use of water would be hazardous, a “non-conducting” extinguishing agent

must be used.





- ❖ Class D – Fires in combustibles metals. A special powder is provided.

- ◆ You must use approved solvents for cleaning and degreasing. The use of gasoline and similar flammable products for this purpose is prohibited.
- ◆ Keep the work area neat. An orderly project reduces the risk of fire and accident hazards.
- ◆ Where fire hazards are prevalent, check with your supervisor for the proper precautions.
- ◆ You must place oily rags in covered metal containers.
- ◆ Do not attempt any work involving a source of ignition near a pit, sewer, drain, manhole, trench, or enclosed space where flammable gases may exist or may have been present. Wait until a test has been

done with an approved combustible gas indicator by a designated competent person and the area has been determined safe for hot work.

- ◆ The use of open fires is prohibited.
- ◆ A one-day supply of flammable / combustible liquids (paints, etc.) is allowed inside a building, in approved containers only.
- ◆ Inspect fire extinguishers monthly.

# Fire Extinguisher Chart

Extinguisher		Type of Fire				
Colour	Type	Solids (wood, paper, cloth, etc)	Flammable Liquids	Flammable Gasses	Electrical Equipment	Cooking Oils & Fats
	<b>Water</b>	✓ Yes	✗ No	✗ No	✗ No	✗ No
	<b>Foam</b>	✓ Yes	✓ Yes	✗ No	✗ No	✓ Yes
	<b>Dry Powder</b>	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No
	<b>Carbon Dioxide (CO2)</b>	✗ No	✓ Yes	✗ No	✓ Yes	✓ Yes



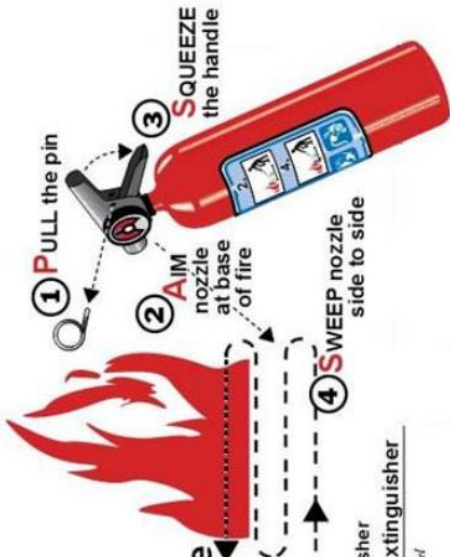
To operate an extinguisher:

**P**ull

**A**im

**S**queeze

**S**weep



Know your extinguisher

Use the correct extinguisher

*(Check your own extinguisher's label for detailed instructions.)*

## Drugs and Alcohol

- ◆ TRICO is a drug and alcohol-free workplace according to federal guidelines and does not condone the use of marijuana.
- ◆ Violation of this policy can result in immediate termination.
- ◆ Employees must not report for duty, perform services, or enter company property while using, under the influence or in possession of illegal drugs (including marijuana), controlled substances or alcohol while on a project or while conducting company business.
- ◆ If reasonable cause exists, the company may, at any time, institute random testing of all employees.
- ◆ Any on-the-job injury requiring medical attention may require, at managements discretion, the injured party and any other employee who may have caused or

contributed to such injury to submit to a drug/alcohol screening.

- ◆ All results are considered private and confidential.
- ◆ If involved in an accident or incident while working, a drug and alcohol test will be required.

## Disciplinary Action

- ◆ All employees are required to follow TRICO's safety policies and operating procedures. The discipline policy of TRICO is intended to encourage subcontractor employee compliance with TRICO's Accident Prevention Program. When needed, TRICO shall provide their employees with additional training and information, or retraining to maintain their knowledge.
  
- ◆ Any employee(s) found performing work in an unsafe manner that could endanger the employee or any other worker may be subject to the TRICO's discipline policy.
  - ❖ Verbal warning
  - ❖ Written warning
  - ❖ Time off without pay or termination
  
- ◆ If the offense is considered life threatening or could cause bodily injury, the following steps may be taken:

- ❖ Written warning and retraining
  - ❖ Time off without pay
  - ❖ Termination
- 
- ◆ The degree of discipline and the step to be utilized is within the sole discretion of TRICO's management. TRICO reserves the right to remove employees from the jobsite "at will" or modify this policy at any time.
  
  - ◆ The employee may appeal disciplinary action through the Safety Committee if they feel that they have received such disciplinary action unfairly.

## Safety Committee

- ◆ TRICO's Safety Committee meets monthly, and any TRICO employee is welcome to attend or pass suggestions to their supervisor for review by the TRICO Safety Committee.
- ◆ Meeting minutes are available to all employees.
- ◆ Safety Committee Objectives:
  - ❖ Report to and make recommendations to employees and management.
  - ❖ Educate employees and management.
  - ❖ Promote safety to all employees in all loss prevention-related topics and generally to promote a safer and healthier work environment.
  - ❖ Review safety related incidents or concerns.
  - ❖ Review safety and health inspection reports to help correct

- safety hazards.
- ❖ Evaluate the accident investigations conducted since the last meeting to determine if the cause(s) of the unsafe situation was identified and corrected.
  - ❖ Evaluate workplace accident and illness prevention program and discuss recommendations for improvement, if needed.
  - ❖ Document attendees, subject matter discussed, and meeting minutes of all safety committee meetings. Preserve minutes for one year and have available to present to L&I personnel if requested.

## Housekeeping and Sanitation

- ◆ Good housekeeping is part of the job.
- ◆ Keeping a clean working environment minimizes tripping hazards and lessens the chance of on-the-job injuries. Clean up is a daily, ongoing requirement.
- ◆ All TRICO employees are expected to keep their workstation and jobsite clean, with free access to all exits, fire alarm boxes, fire extinguishing equipment, and any other emergency equipment.
- ◆ TRICO shall provide employees with potable water, toilet and handwashing facilities.
- ◆ Any housekeeping or sanitation concerns should be reported to your supervisor immediately.



# Occupational Illness and Injury

## ◆ Immediate Steps

- ❖ Notify your supervisor.
- ❖ Activate the Emergency Medical Services (EMS) by calling 911 if necessary.
- ❖ Supervise and administer first aid.
- ❖ Arrange for transportation by either EMS or the supervisor.
- ❖ Do not move anything unless necessary, pending investigation of accident.
- ❖ A supervisor shall accompany or take injured to doctor or hospital. Make sure that along with treatment, the injured worker is administered a drug test in compliance with the drug policy of the company.
- ❖ Remain with injured until relieved.
- ❖ Supervisor shall notify the injured person's immediate family.
- ❖ Report the accident to the person(s) responsible for investigations.

- ◆ Documentation
  - ❖ Following an incident or accident, all parties involved shall fill out the incident form and/or witness statement.
  
- ◆ Near-Misses
  - ❖ Notify your supervisor immediately.
  - ❖ All near-misses (close calls) shall be investigated.
  - ❖ Document findings on company Incident Alert form.
  - ❖ Review findings at weekly toolbox meetings, monthly safety meetings or sooner, if situation warrants.
  
- ◆ TRICO has a light duty and return to work policy that is reviewed on a case by case basis and must be approved by management.
  
- ◆ TRICO maintains a Log and Summary of Occupational Injuries and Illness on OSHA forms, which are available for any employee to review upon request.

## First Aid

- ◆ First Aid Kits are located in various areas on TRICO jobsites and in all company vehicles. Be familiar with where First Aid Kits are located in proximity to you.
  
- ◆ Bloodborne pathogens are microorganisms that may be present in human blood or other bodily fluids that can cause disease in humans.
  - ❖ Take necessary precautions to limit your exposure by using proper PPE (e.g. safety glasses, rubber gloves) and wash your hands immediately after an incident.
  - ❖
  - ❖ If exposure occurs, notify your supervisor immediately and seek a medical examination.

## Safety Meetings

- ◆ Attend weekly safety meetings & ensure your attendance has been documented.
- ◆ The following topics will be discussed at weekly safety meetings:
  - ❖ Ongoing reminder of TRICO PPE requirements.
  - ❖ Upcoming hazardous work and work plans – attendees to advise of any concerns.
  - ❖ Ensure SDS are available in TRICO Jobsite Office & request any needed SDS from subcontractors.
  - ❖ Discuss current work in progress, to include associated risks.
  - ❖ Discuss any observations, corrections, compliments or recognition from Safety walks.
  - ❖ Weekly toolbox topics as assigned for ongoing training.

## General Safety Rules

- ◆ **Report every injury or accident to your supervisor immediately.**
- ◆ Do not block aisles, traffic lanes, fire exits, gangways, or stairs.
- ◆ Get help with heavy or bulky materials, and use proper lifting techniques.
- ◆ Remove loose materials on stairs, walkway, ramps, and platforms.
- ◆ Guardrails shall be erected around floor and wall openings with fall distance of 4' or more. Provide toe kicks to prevent objects from falling from openings.
- ◆ Protruding nails shall be removed or bent over.
- ◆ Horseplay, fighting, gambling, possession of firearms and possession or use of alcoholic beverages or drugs, except as prescribed by a qualified physician, are

strictly forbidden.

- ◆ Be aware of your fellow employees and surroundings – think defensively.
- ◆ Wear required personal protection (PPE) as detailed by the TRICO requirements.
- ◆ Attend all jobsite safety “toolbox” meetings.
- ◆ Abide by project warning signs, including barricades, warning lines, caution tape, etc. Do not cross over, under or through such areas.
- ◆ Only operate equipment you have training or authorization to operate.
- ◆ Never place job performance over safety. If unsure STOP and ask.
- ◆ Ask questions if unsure. There are no dumb questions.

## Cellular Phones

- ◆ Personal cell phones shall not be used while working except for emergency use or while on lunch and/or break.
- ◆ Work related calls may be answered after you step away from the working area.

## Process Safety Management

- ◆ Employees may work on projects with additional or specific plant safety rules. Supervisor will notify you of any specific requirements during your Jobsite Orientation.
- ◆ Contractors should be familiar with plant safety rules as it applies to our work in and around plant areas.
- ◆ TRICO employees shall abide by employer's safe work practices during operations such as lockout/tagout, hazardous chemicals or gases, confined space entry, opening process equipment or piping and controls prior to entering the facility.
- ◆ This program is to prevent and minimize consequences of catastrophic releases of toxic, reactive, flammable or explosive chemicals in various industries such as food processing plants, etc.



- ◆ Refer to the Employee Health and Safety Manual for further information.

## Motor Vehicles

- ◆ Any employee operating a company vehicle shall have read and signed the Company Vehicle & Equipment Use Agreement prior to operation.
- ◆ Seatbelt usage is required in all company vehicles.
- ◆ All accidents or incidents must be reported to your supervisor or the TRICO main office immediately.
- ◆ Be familiar with the Vehicle Toolkit provided in all company vehicles.

## Office Safety

- ◆ Walk, do not run.
- ◆ Do not stand in front of closed doors.
- ◆ Do not read correspondence while walking.
- ◆ Be cautious with swivel chairs.
- ◆ Do not create tripping hazards.
- ◆ Use the handles when closing doors or drawers.
- ◆ Use proper lifting techniques when carry heavy items and/or ask for help.
- ◆ Keep stored items out of the aisle ways.
- ◆ Know where the First Aid Kit & AED is located.
- ◆ Ensure blade of paper cutters are properly stored.

- ◆ Printer toner cartridges shall be handled per manufacturer's recommendation.
- ◆ Maintain ergonomic postures when sitting or standing at your workstation.
- ◆ Be aware of eye strain when working on the computer for long periods of time.
- ◆ Know where the Fire Extinguishers are located.
- ◆ Maintain good housekeeping throughout the office.
- ◆ Keep hallways clear of tripping hazards.

## Safeguarding Workers

- ◆ Employees are encouraged to “speak up!” when they see an unsafe condition or co-worker performing (or about to perform) an unsafe act. A safe condition or act may include, but is not limited to the following:
- ◆ Using grinders, saws or other tools with the benefit of guards.
- ◆ Wearing the proper personal protective equipment (PPE) for the task.
- ◆ Providing adequate space between the power lines with bull floats, backhoe buckets, dump truck beds, mobile lifts, cranes, etc.
- ◆ Warning others of unsafe trench conditions or operations.
- ◆ Making sure that first-aid kits, fire extinguishers, SDSs, PPE, and other safety related material and/or equipment are accessible to site workers.

- ◆ Staying clear and warning others to stay clear of loading and unloading equipment, crane operations, overhead work, tree falling operations and other such hazards when not essential to the actual task.
- ◆ Reporting “near miss incidents” to the job superintendent.
- ◆ Helping and encouraging co-workers to help in the housekeeping effort.

## Job Hazard Analysis (JHA)

- ◆ A Job Hazard Analysis (JHA) is a method for systematically identifying and evaluating hazards associated with a particular job or task.
- ◆ All hazardous activities shall require a documented JHA.
- ◆ When completing a JHA, start by identifying the job or task to be analyzed and then breaking that task into key components, identifying the hazards in each component.
- ◆ A JHA should cover the following:
  - ❖
  - ❖ The hazardous task to be performed
  - ❖ Potential hazards resulting from that task
  - ❖ Protective measures to be taken to minimize risk of the hazard
  - ❖ Personal Protective Equipment Required

- ❖ Start date of task
  - ❖ Completion date of task
  - ❖ Documentation that JHA was reviewed with workers prior to performing task – all workers should sign the JHA.
- 
- ◆ Completed JHA's should be kept in the safety binder onsite.
  
  - ◆ When you have completed the JHA and are starting to complete the task, periodically assess the hazards to ensure the potential hazards are being mitigated as best as possible. At the minimum JHAs should be reviewed weekly for changes and updates.
  
  - ◆ If you feel you are working on a hazardous task and have not reviewed a JHA for that task, contact your supervisor immediately.



## Personal Protective Equipment (PPE)

- ◆ Employees must wear clothing suitable for the work they are performing. Minimum attire consists of a Hi-Vis short-sleeved shirt, long pants, and sturdy footwear (thick-soled leatherwork boots or equivalent). Note: steel-toes recommended. Shorts, cutoffs, tank tops, or mesh shirts are not allowed on TRICO projects.
- ◆ Hard hats must be worn at all times 100% on the construction site. Employees are not to modify hard hats without TRICO's permission.
- ◆ Eye protection shall be worn at all times 100%.
- ◆ Face shields are to be used with power and/or pneumatic tools/equipment that pose additional hazards such as hand tools on or near electrical equipment;

chemicals, gasses or fluids; dry sacking, mixing and vibrating concrete; cut-off saws, chain sawing, chipping, grinding and jack hammering.

- ◆ Hearing protection is required when working with or near heavy equipment, cut-off saws, rotohammers, soil compactors, impact and pneumatic tools, chainsaws, pipe cutters and jackhammers.
- ◆ Respiratory and fall protection equipment is highly job specific and requires training prior to issuing and use.
- ◆ Use of chainsaws requires the use of ballistic leg protection, eye, ear and face protection. Ask your supervisor for further details.
- ◆ Gloves are recommended and should be worn when handling objects or substances that could cut, tear, burn or otherwise injure the hands. Employees using gloves should inspect them for defects prior to

each use.

- ◆ Rubber boots and gloves shall be worn for work in concrete or around other materials that present a similar hazard.
- ◆ Situations that may require unique safety equipment and special training should be discussed with your supervisor prior to commencing work.
- ◆ Modification or alteration of any piece of personal protective equipment is strictly prohibited. Defective or damaged personal protective equipment must be returned for replacement or repair.

**Employees must properly care for and track the condition of the PPE they use! Always replace worn out PPE.**

Operation	Hazards	Recommended Protection
Acetylene - Burning, Cutting, & Welding	Sparks, Harmful Rays, Molten Metals, & Flying Particles	7, 8, 9
Chemical Handling	Splash, Acid Burns, & Fumes	2, 10
Chipping	Flying Particles	1, 3, 4, 5, 6, 7A, 8A
Electric Arc Welding	Sparks, Intense Rays, & Molten Metal	9, 11 (11 w/4, 5, 6 in tinted advised)
Furnace Operations	Glare, Heat, & Molten Metal	7, 8, 9 (For severe exposure ADD 10)
Grinding - Light	Flying Particles	1, 3, 4, 5, 6, 10
Grinding - Heavy	Flying Particles	1, 3, 7A, 8A, (For severe exposure ADD 10)
Laboratory	Chemical Splash	2
Laboratory	Glass Breakage	4, 5, 6 in combination with 10
Molten Metals	Heat, Glare, Sparks, and Splash	7, 8 (10 combined w/4, 5, 6 in tinted)
Spot Welding	Flying Particles, Sparks	1, 3, 4, 5, 6, 10
Chop Saw, Cutoff Machine (ie hot or demo saw), grinding, and chainsaw.	Flying Particles	1, 3, 7A, 8A, and 10

**NOTE - A's denote clear lenses**



1



2



3



4



5



6



7



8



9



10



11

## Hand Tools

- ◆ Do not use tools that are in poor condition. Any equipment found to be faulty or in need of maintenance shall be removed from the jobsite and replaced or repaired.
- ◆ Do not operate any power tool or equipment unless you are trained in its operation.
- ◆ Use the right tool for the job.
- ◆ Use tools only for their designed purpose.
- ◆ Proper guards or shields must be installed on all power tools before use. Do not modify the guard or shields.
- ◆ No “homemade” handles or extensions (cheaters) will be used!
- ◆ Visually inspect cords and plugs for any damage, mashed or missing wires or plugs.

## Chainsaw Use

- ◆ **Complete a Job hazard Analysis!**
- ◆ Review operating manual prior to use.
- ◆ Use of chainsaws requires the use of ballistic leg protection, eye, ear and face protection.
- ◆ Ask your supervisor for further details.

## Fall Protection

Falls are one of the leading causes of occupational fatalities in the American work place. Fall protection rates high on the list for the most frequently cited violations by Washington State Safety and Health Compliance Inspectors when inspecting construction sites. WAC 296-155 mandates that workers shall be protected from fall hazards from building, bridges, structures, or construction members such as trusses, beams, purlins, or plates.

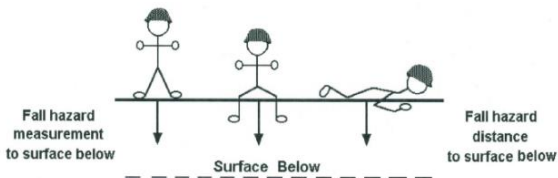
- ◆ Falls are one of the most often and most serious risks faced on the jobsite. Workers must talk to the jobsite Superintendent whenever they are uncomfortable about working at heights.
- ◆ All Workers must be protected from fall hazards over 6'.
- ◆ Fall protection violations may result in permanent dismissal.



- ◆ Fall protection worksheet must be provided and all affected workers trained prior to work at heights of 6' or more.
- ◆ Guardrails or barricades must be installed around all open sided excavations and opening more than 4' deep. Use covers on holes and small openings to prevent tripping hazards.
- ◆ Use fall arrest/fall restraint systems whenever fall potential is 6' or more. Make certain that all tie-off points are capable of withstanding a 5,000 lb. shock load and that all life lines are able to handle 4 times the intended load.
- ◆ One person per tie off point unless approved by Fall Protection Work Plan.
- ◆ **Before an employee dons a fall restraint harness, they need to review and sign off on a fall protection worksheet and Job Hazard Analysis (JHA).**

## ◆ Fall Protection Worksheet/Plan

- ❖ A Fall Protection Worksheet/Plan will be provided at the beginning of each and every job. These worksheets/plans will be completed and signed prior to starting work if a fall hazard of six (6) feet or greater exists.
- ❖ All heights shall be measured from the supporting structure as shown below.
- ❖ The foreman shall complete the Fall Protection Worksheet/Plan and review it with employees prior to starting work. The Worksheet/Plan will be made available in the jobsite office.



- ❖ Once the plan is completed, the Fall Protection Worksheet/Plan shall be discussed by all parties at the jobsite and initialed prior to starting work.
- ❖ All employees at the jobsite must read and understand all items on the Fall Protection Worksheet/Plan before initialing. It shall be the responsibility of the supervisor to ensure that all parties fully understand the worksheet/plan.
- ❖ Any person working at a jobsite without initialing the worksheet/plan will be subject to disciplinary action.
- ❖ Fall Protection Worksheets/Plans can be found in the Employee Health and Safety Manual.

## ◆ Methods of Fall Protection

- ❖ There are many methods of fall protection. Consulting WAC 296-155 should be used as the authority when deciding on fall

protection.

- ❖ Keep in mind that on flat or low-pitched roofs 4-12 or less, a safety monitor system may be utilized. Use of a Safety Monitor requires approval of the Senior Project Manager.
- ❖ When at all possible, full body harnesses should be used with attachments in accordance with WAC.
- ❖ When using a man lift, assure that the lift is in good working order and that hazards such as uneven terrain and other hazards are recognized to prevent being thrown from lift.
- ❖ Keep in mind that fall protection may be required for heights of less than six (6) feet in certain circumstances such as excavations and Walking Working Surfaces.
- ❖ When questions arise, do not hesitate to contact your supervisor or Safety Director to discuss your

options. If you are not sure, don't do it!

## ◆ Walking Working Surfaces

- ❖ Open-Sided Floors and Platforms 4 feet or more above adjacent floor or ground level must be guarded by a standard railing (or equivalent) on all open sides, except where there is an entrance to a ramp, stairway, or fixed ladder.
- ❖ A toeboard is required when, beneath the open sides: persons can pass, there is moving machinery, or there is equipment with which falling materials could create a hazard.
- ❖ Wall openings are at least 30 inches high and 18 inches wide, in a wall or partition, through which persons may fall; if a drop of more than 4 feet is present, a guard must be in place.

## Ladders

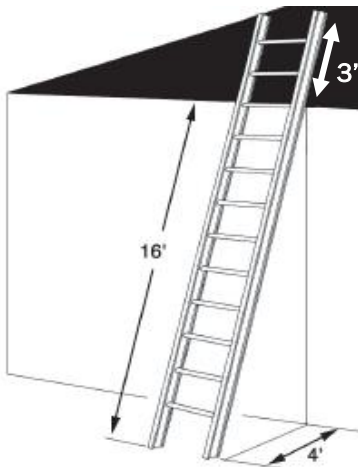
- ◆ A ladder shall be provided at all personnel points of access where there is a break in elevation 18 inches or greater and no ramp, runway, sloped embankment or personnel hoist is provided.
- ◆ Areas around ladders shall be kept clear at all times.
- ◆ Inspect before use for physical defects. If defects are present, tag and remove from service.
- ◆ Broken or damaged ladders shall not be used. Ladders that cannot be repaired must be reported to your supervisor, tagged out and removed from the work area.
- ◆ 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. Face ladder when ascending or descending.

- ◆ Minimum Duty Rating allowed on TRICO jobsites is Type 1 Heavy Duty; 250 pound max. intended load. Using a ladder with a higher Duty Rating is acceptable, such as type 1A Extra Heavy Duty; 300 pound max. intended load.
- ◆ Designed Use
  - ❖ Do not overload ladders – refer to manufacturer’s rated capacity.
  - ❖ Choose a ladder that is appropriate for intended use.
- ◆ All straight or extension ladders must be at least 3’ beyond the supporting object when used as an access to an elevated work area.
- ◆ All extensions or straight ladders must be secured to prevent accidental displacement.
- ◆ All straight and extension ladders shall be

equipped with safety feet or be secured at the bottom.

- ◆ All straight ladders shall be secured at the top to prevent movement.
- ◆ The base of straight or extension ladders shall be set back a safe distance from the vertical (approximately one-fourth of the working length of the ladder).





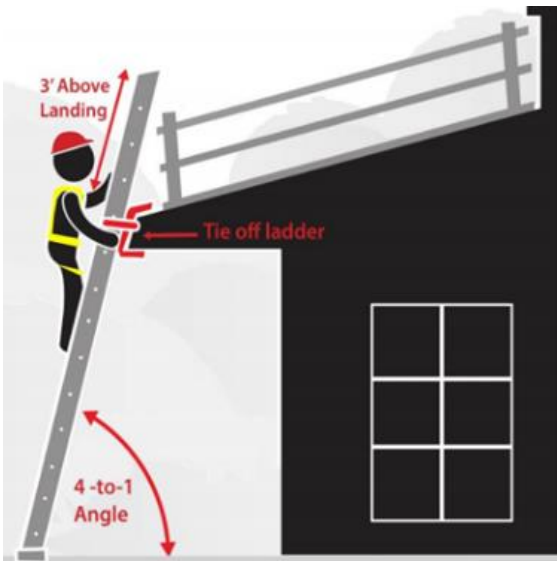
- ◆ Do not splice together short ladders to make a longer ladder.
- ◆ Ladders must not be placed against movable objects.
- ◆ The areas around the top and base of ladders must be free of tripping hazards such as loose materials, trash, cords, hoses and leads.
- ◆ Be sure that your shoes are free of mud, grease or other substances that could cause a slip or fall.
- ◆ Do not carry materials up or down a ladder.
- ◆ Always step down and move the ladder to avoid overreaching.
- ◆ Before using a metal ladder, check all surroundings for electrical hazards. Metal ladders are not to be used for electrical work or in areas where they could contact energized electrical components.

- ◆ You must maintain three points of contact at all times when utilizing a ladder.



## Extension Ladder Straight Ladder For Access

- ◆ Mandatory to secure the ladder at the top. Secure the bottom if practical.



## ◆ Stepladders

- ❖ Do not place tools or materials on the steps or platform of stepladder, unless stepladder is designed to secure the tools/materials.
- ❖ Do not use the top 2 steps of ladder cap of a stepladder as a step or stand.
- ❖ Always level all four feet and lock spreaders in place.
- ❖ Do not lean stepladder against the wall to use as a straight ladder. Only use stepladder with legs fully extended and locked.

Duty Rating	Ladder Type	Use	Max. Intended Load	Allowed on TRICO Jobsite?
Extra Heavy Duty	IA	Industry/ Utility	300#	YES
Heavy Duty	I	Industry/ Utility	250#	YES
Medium Duty	II	Painters/ Light Maint.	225#	NO
Light Duty	III	General Household	200#	NO

## Scaffolds and Elevated Work Platforms

- ◆ Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design.
- ◆ All scaffolding shall be inspected daily and approved by a competent person in scaffold erection by experience and training. Damaged scaffold members must be removed from service or repaired immediately.
- ◆ Each platform on all working levels of scaffolds shall be fully planked or decked between the front uprights and the guardrail supports as follows:
  - ❖ Each platform unit shall be installed so that the space between adjacent units and the space between the platform and the uprights is no more than 1 inch wide

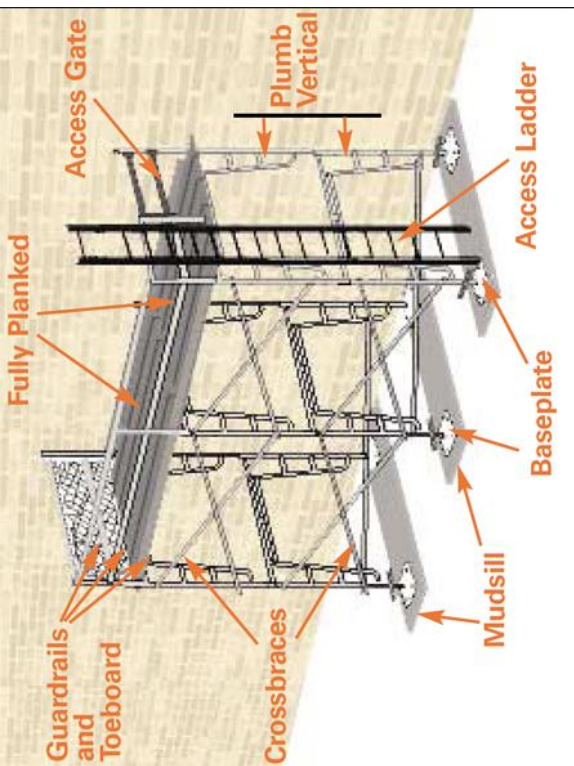
- ❖ Guardrails, midrails, and toeboards shall be installed on all open sides of scaffolds. Guardrails, midrails and toeboards should be constructed from components furnished by the manufacturer. Where this is not possible, sound 2x4 inch lumber (or equivalent) must be used for guardrails and midrails and 1x4 inch lumber for toeboards. Guardrails are to be constructed in accordance with requirements. Contact your supervisor for requirements.
- ❖ Shall be constructed with a safety factor of four (4) times the maximum intended load.
  
- ◆ Scaffold planks must be at least 2x10 inch full-thickness lumber, scaffold grade, or the equivalent.
  
- ◆ Scaffold planks must extend over the end supports by at least 6 inches but not more than 12 inches.

- ◆ Access ladders are required. Climbing the end frames is prohibited unless their design incorporates an approved ladder.
- ◆ Scaffolds shall not be overloaded. Materials should be brought up as needed. Excess materials and scrap shall be removed from the scaffold immediately.
- ◆ Concrete masonry blocks, bricks, boxes and similar unstable objects shall not be used as work platforms or to support scaffolds.
- ◆ Where persons are required to work under a scaffold, a screen of 18 gauge, ½ inch wire mesh or equivalent protection is required between the toeboard and the guardrail.
- ◆ Overhead protection is required if employees working on scaffolds are exposed to overhead hazards.
- ◆ Each scaffold platform and walkway



should be at least 18 inches wide.

- ◆ The front edge of all platforms shall not be more than 14 inches from the face of the work, unless guardrail systems are erected along the front edge and/or personal fall arrest systems are used to protect employees from falling.
- ◆ All scaffolding shall be inspected and “Green Tagged” prior to use. Any scaffold with defective equipment, unsafe conditions, or incomplete shall be “Red Tagged” and not used until deficiencies have been corrected.
- ◆ A competent person must inspect and document the scaffolding daily prior to use.



## ◆ Powered Work Platforms

- ❖ All employees who operate powered elevated work platforms shall receive training on each type of equipment s/he shall be working on prior to the beginning of work.
- ❖ Check for and thoroughly read the operators manual that should be with each lift.
- ❖ Do a walk around inspection to check for loose pins, damaged tires, worn or leaking hoses & lines, damaged controls, extended axles, power track damage, fluid levels, worn or exposed battery connections, damaged or obstructed emergency operating controls.
- ❖ Check the ground conditions and clear the working surface of hazards in order to be relatively level, not be at the edge of open ditches, not slope down at the rear of the machine, should include

shimming of the tires if the basket is working in tight areas or all tires are not on the ground, covered openings, holds, ditches and other depressions, protrusions, such as piping, uneven surfaces, general clutter and trash.

- ❖ Make sure all gates and access way chains operate properly and are closed or hooked before operating lift.
- ❖ Assure that all powered lifts are equipped with a working backup alarm or a spotter is used when moving the lifts.
- ❖ All persons using boom type elevated work platforms shall utilize an A.N.S.I. approved fall restraint or fall arrest system attached to a manufacturer provided and approved attachment points.
- ❖ **Prepare a Job Hazard Analysis if working within 20' of powerline or electrical equipment.**

- ◆ Rolling & Narrow Frame Scaffolds  
(Also known as Baker/Perry style)
  - ❖ Do not pull yourself from one location to another while standing on the platform.
  - ❖ Rolling scaffolds shall only be used on level surfaces.
  - ❖ The height of narrow frame scaffolds shall not exceed the manufacturer's literature or two times the base dimension.
  - ❖ Caster brakes **must** be locked when the scaffold is being used or is not in motion.
  - ❖ Obtain assistance when moving rolling scaffolds. Make certain that the route is clear. Watch for holes and overhead obstructions.
  - ❖ Secure or remove all loose materials and equipment before moving scaffold.
  - ❖ All rolling scaffolds **must** have proper handrails or other approved fall protection regardless of height.
  - ❖ Not to use a scaffold if it is

incomplete, broken or has missing or ill-fitting parts which need replacement.



**Figure 1**

## Floor / Wall Openings and Stairways

### ◆ Stairways

- ❖ Stairways that will not be permanent shall have landings not less than 30 inches wide in the direction of travel and 22 inches in width at every 12 feet or less of rise.
- ❖ In all buildings or structures two (2) or more stories or twenty-four (24) feet or more in height, suitable permanent or temporary stairways shall be installed whenever practical.
- ❖ All stairways shall be equipped with handrails.

- ◆ Floor openings shall be barricaded or securely covered to prevent accidental displacement. Label or mark all floor hole coverings. "Floor Opening - Do Not Remove" with 1" letters or larger.



- ◆ If it is necessary to work inside the barricade around a floor opening, you must use a safety harness and be tied off to the structure or an independent lifeline.
- ◆ Wall openings from which there is a drop of more than 4 feet, and where the bottom of the opening is less than 30 inches from the working surface (floor), shall be guarded with a top rail, midrail and toeboard, unless studs are less than 18 inches on center.
- ◆ Every open-sided floor or platform 4 feet or more above the adjacent floor or ground level must be guarded by a top rail, midrail, and toeboard or equivalent.
- ◆ Every flight of stairs having 4 or more risers shall be equipped with a top rail and midrail on all open sides.



## Lockout / Tagout Procedures

- ◆ Lockout/Tagout is required with hazardous energy sources, safety guards that are removed or bypassed, and situations where a worker has to place any part of their body in the equipment's point of operation.
- ◆ Notify supervisor and surrounding employees that equipment will be shut down.
- ◆ Power down equipment following its shut down procedure.
- ◆ Close all the energy isolating devices identified on the equipment's specific lockout/tagout procedure.
- ◆ Dissipate or restrain stored or residual energy.
- ◆ Verify that the equipment is completely de-energized & place Lock Out Tag.

- ◆ Begin to perform work in or out.

## Above Ground Electrical – High Voltage

- ◆ **Complete a Job Hazard Analysis!**
- ◆ All operations, servicing and maintenance of machines, equipment and systems in which the start-up or release, or stored energy could cause injury to the employee, shall be controlled by means of lockout/tagout procedures.
- ◆ All nonessential personnel shall be vacated from the area as necessary during the servicing operation.
- ◆ There shall not be any excavation, construction, demolition, repair or other operation in proximity to electrical conductors unless and until danger from accidental contact has been effectively guarded.

- ◆ Minimum clearance between the powerlines and any part of the equipment or load are outlined in the following table:

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

- ◆ Where overhead electric conductors are encountered in proximity to a work area, the Superintendent shall be responsible for:
  - ❖ Ascertaining the voltage and minimum clearance distance required; and
  - ❖ Maintaining the minimum clearance distance; and
  - ❖ Complying with the requirements of the Employee Health and Safety Manual, Policy # CONST.0025.
  
- ◆ Utilize warning signs as required.
  
- ◆ Treat all overhead and exposed electrical lines as they are live until the owner of such line or the electrical utility authorities indicate that it is not an energized line and it has been visibly grounded.

## Below Ground Electrical – High Voltage

- ◆ **Complete a TRICO Excavation Utility Permit!**
- ◆ Call 811 or private locates before you dig. Before any digging takes place, even with a shovel, utility locates are **required** (sewer, telephone, fuel, electric and water lines).
- ◆ It takes 2 full business days before locates are active.
- ◆ Emergency excavation is not exempt from calling for locate.
- ◆ Locate marks expire 45 days from the date the excavator provides notice.
- ◆ In work areas where the exact location of underground electric powerlines is unknown, no activity which may bring employees into contact with those

powerlines shall begin until the powerlines have been positively and unmistakably de-energized and grounded.

- ◆ Use handheld digging tools, pot-holing or vacuum excavation when digging within 24 inches of the outside edge of any underground lines.

ALWAYS  
CALL  
BEFORE YOU  
DIG



# Call Before You Dig

## Locator Mark Colors



Electric Power Lines

Gas, Oil, or Steam

Communication Lines, CATV

Potable Water

Reclaimed Water, Irrigation, Slurry

Sewers and Drain Lines

Temporary Survey Markings

Proposed Excavation



Know what's below.  
**Call** before you dig.



## Temporary Power Requirements

- ◆ Grounding – all electrical cords and equipment are tested and inspected prior to use and periodically thereafter.
- ◆ Visually inspect cords and plugs for any damage, mashed or missing wires or plugs.
- ◆ Using a receptacle tester, plug the extension cord into the outlet, and the receptacle tester into the cord. If the ground is intact, the light will illuminate.
- ◆ Repairs can only be made on 12 gauge or larger cords.
- ◆ Cords with external case damage can be repaired with tape.
- ◆ If primary wires are damaged, then you can cut and install a new plug, which should be waterproof.
- ◆ GFCI (Ground Fault Circuit Interrupters)

must be utilized on all temporary wiring and 120 volt, single phase, 15 ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure and which are used by employees.

- ◆ GFCI sense any loss of current and will quickly shut the power off.
- ◆ **Injuries and Death occur when the body provides an electrical current path to the ground.**

## Excavation, Trenching, & Shoring

- ◆ Fill out the TRICO Excavation Utility Permit!
- ◆ Utility companies or owners shall be contacted by calling 811 and advised of the proposed work at least 48 hours in advance of excavation.
- ◆ Hand shoveling, pick, axe and other long-handled hand tools which are used in trenches shall require employees to maintain awareness of their surroundings.
- ◆ All trench excavations of 4' or deeper requires a safe means of egress (ladder; ramp ext. within 25' or less). Workers are not permitted to jump into or climb out of deep trenches or trench boxes (use a ladder or ramp).
- ◆ No employee is allowed to ride, stand under or be beneath lifting or digging equipment.
- ◆ Walkways shall be provided where

employees or equipment are required or permitted to cross over excavations. Guardrails must be in place, which comply with chapter 296-155 WAC, Part C-1, where walkways are 4 feet or more above lower levels.

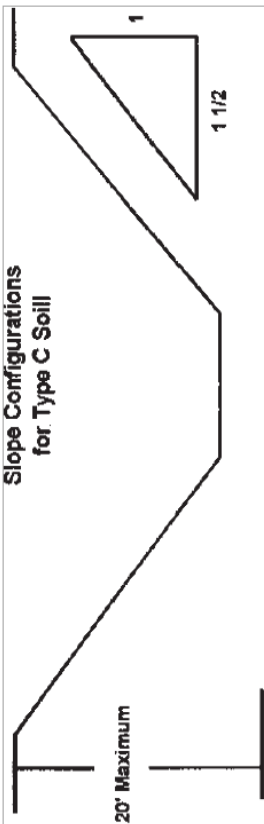
- ◆ You must provide adequate barrier physical protection at all remotely located excavations. You must barricade or cover all wells, pits, shafts, etc. Upon completion of exploration and similar operations, you must backfill temporary wells, pits, shafts, etc.
  
- ◆ Trench boxes shall be used when proper slopes as determined by WAC cannot be accomplished and trenches are 4 feet in depth or greater unless the design is approved by a registered professional engineer.
  
- ◆ Employees shall not work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate

precautions have been taken to protect employees against hazards created by water accumulation.

#### ◆ Sloping & Benching Systems

- ❖ Excavations shall be sloped at an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal), unless the employer uses one of the other options listed below.
- ❖ Slopes specified shall be excavated to form configurations that are in accordance with the slopes shown for Type C soil as described in WAC.
- ❖ All soils treated as Type C unless approved by a professional engineer in writing.

**Slope Configurations  
for Type C Soil**

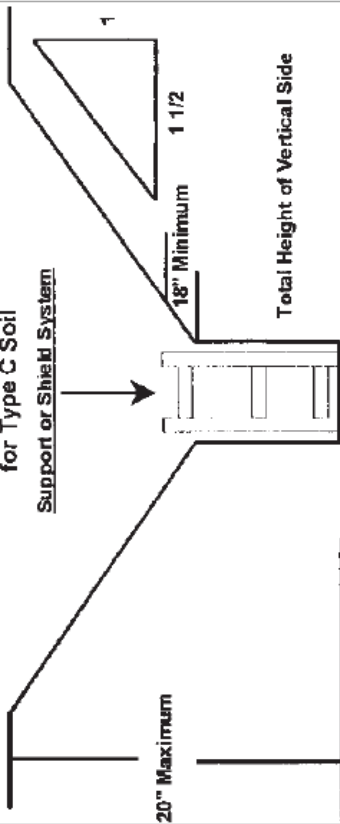


**Simple Slope**

**All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1 1/2:1.**

## Slope Configurations for Type C Soil

### Support or Shield System



### Vertically Sided Lower Portion

All excavations 20 feet or less in depth which have vertically sided lower portions shall be shielded or supported to a height at least 18 inches above the top of the vertical side.

All such excavations shall have a maximum allowable slope of 1 1/2:1

## Excavation Utility Permit

- ◆ No excavation is to take place without first knowing the location of existing underground utilities and the completion of TRICO Excavation Utility Permit. Pertinent information on permit is as follows:
  - ❖ Start Date
  - ❖ End date
  - ❖ Locates complete
  - ❖ Locates checked with utility companies.
  - ❖ Locates have been referenced and protected
  - ❖ Locates have been checked against plans or as built
  - ❖ Review JHA
  - ❖ Potholing utilities for verification
  - ❖ See Excavation Utility Permit for complete details.



## Confined Space

- ◆ A Confined space is a space that:
  - ❖ Is large enough and so configured that an employee can bodily enter and perform assigned work; and
  - ❖ Has limited or restricted means for entry or exit; and
  - ❖ Is not designed for continuous employee occupancy.
  
- ◆ Common examples include: man holes, catch basins, shafts, pipes, tanks, pits, attics, silos, etc.
  
- ◆ Dangers of confined space include but are not limited to the following: lack of oxygen, poisonous gas, fumes or vapors, fire and explosions, high dust concentrations, extreme heat, mechanical or physical hazards, loose materials, etc.
  
- ◆ **Only “trained and authorized” employees are allowed to work in confined spaces after they have completed a TRICO**

## **Confined Spaces Entry Permit.**

- ◆ Excavation in landfills or in areas adjacent to where hazardous materials have been (or are being) stored, and in areas where hazardous atmospheres could reasonably be expected to exist, e.g. utility corridors for sewers, natural gas pipelines, etc. must be tested prior to entry.
- ◆ An “entry permit” will be located at the entrance to the trench (confined space area). No employee will be allowed to enter without first reading and signing the permit. Note: the permit will have initial test readings showing the air quality within the confined space.
- ◆ If you do not feel comfortable about the test results, do not hesitate to question the company’s “competent person.” The designated competent person acts as your lifeline-to-safety and your entry supervisor. No employee will be permitted to enter without entry supervisor’s ok.

- ◆ Warning signs shall be posted outside the confined space during work to provide warning of the confined space operation.
- ◆ Take extra PPE precautions appropriate to the task being completed. Ask your supervisor for further information if you are unsure.
- ◆ If you smell or feel anything different, get out of the confined space immediately! Evacuate all other personnel in the vicinity as well.
- ◆ If you're not sure, don't go in!

## General Equipment Use

- ◆ Utilize Industry Hand Signals.
- ◆ Read and understand operator's manual thoroughly prior to operation.
- ◆ Maintain good working order and inspect equipment daily.
- ◆ Do not leave equipment unattended with the motor running.
- ◆ Operate at speeds conducive to the jobsite conditions.
- ◆ Be aware of loose clothing that could get caught in operating parts.
- ◆ Use designated Spotter when unsure of your surroundings.
- ◆ Ensure Operator and ground personnel make eye contact.
- ◆ Never step over the tongue of towed

equipment.

## Heavy Equipment

- ◆ Safety rests largely in the hands of the heavy equipment operator.
- ◆ The operator must make certain that the equipment is in safe operating status (brakes, signals, lights, horns, backup alarms, etc.) and perform equipment checklist inspection prior to use.

Note: this directive also includes rented equipment.

- ◆ All operators should carry some form of communication device, especially when working alone or out-of-site/shouting range.
- ◆ Safe work practice dictates that wheel stops, barricades or signalpersons are used when operators approach trench/excavation edges with obstructed views.

- ◆ Mobile equipment must not be operated closer than 20 feet from power lines and transformers, up to 350kV, unless grounded or de-energized (50 feet exceeding 350kV).

## Flagging / Traffic Control

- ◆ Only certified licensed flaggers are allowed to conduct flagging duties.
- ◆ All flagging and traffic control shall meet their requirements of Manual of Uniform Traffic Control Devices (MUTCD).
- ◆ All signage shall be implemented and maintained in accordance with your site specific traffic control plan. Contact your supervisor for additional information or questions regarding.
- ◆ Traffic control is also important to job safety. Controlling dust, wearing high visibility clothing and using “flaggers” to direct the flow of traffic are typically traffic safety control measures that may be required to keep the jobsite safe.



## Cranes and Rigging

- ◆ TRICO's Crane Pick Plan is required for all crane operations. If the crane is moved for the next operation, another Crane Pick Plan is required. **The Crane Pick Plan shall be reviewed and documented by all parties involved in the crane pick.** If you are involved in a crane pick, ensure that you are familiar with the Crane Pick Plan.
- ◆ Ensure the ground in the lift area is suitable to support the equipment, materials, and load, and in compliance with the manufacturer's requirements. Use crane pads or dunnage/cribbage as required by the certified crane operator.
- ◆ The Superintendent/Site Supervisor shall assign and document a Lift Director to oversee all crane operations. The Superintendent/Site Supervisor may assign themselves as the Lift Director.
- ◆ The crane shall be inspected daily by the

Operator, or their competent person.

- ◆ The hazard assessment shall also determine if any portion of the equipment, load line, or load will have the potential of getting within 20 feet of any powered line, transformer, or other electrically live equipment up to 350kV (exceeding 350kV, within 50 feet). If live voltage is present, the competent person and the operator shall determine the precautions needed to safely conduct the lift up to and including contacting the local power company to secure power.
- ◆ Rigging shall be inspected by a competent person prior to shift and before each lift.
- ◆ Determine if a dedicated Spotter is required, and if so the Lift Director shall assign the Spotter.
- ◆ Where overhead electric conductors are encountered in proximity to a work area, the company shall be responsible for:

- ❖ Ascertaining the voltage and minimum clearance distance required; and
- ❖ Maintaining the minimum clearance distance; and
- ❖ Ensuring that the requirements of the Employee Health and Safety Manual, Policy # CONST.0025 are complied with.

See Above Ground Electric – High Voltage section for further information.

## Industry Hand Signals



**USE MAIN HOIST**



**USE WHIPLINE**



**LOWER BOOM**



**RAISE BOOM AND  
LOWER LOAD**



**HOIST**



**LOWER**



**LOWER BOOM AND  
RAISE LOAD**



**SWING**



**RAISE BOOM**



**STOP**



**EXTEND BOOM**



**DOG EVERYTHING**



**RETRACT BOOM**



**EXTEND BOOM  
(ONE HAND)**



**EMERGENCY STOP**



**TRAVEL  
(ONE TRACK)**



**RETRACT BOOM  
(ONE HAND)**



**MOVE SLOWLY  
(i.e. HOIST SLOWLY)**



**TRAVEL  
(BOTH TRACKS)**



**TRAVEL**



## Powered Industrial Trucks (Forklifts/Telehandlers)

- ◆ Operator shall inspect the equipment prior to use for damage and to verify the proper function of all safety devices such as horn, back up alarm, seat belt, and lights. Any deficiencies shall be reported and corrected prior to use.
- ◆ Do not allow people under the elevated portion of any powered industrial truck whether loaded or not.
- ◆ Only utilize the forklift in the manner that it was designed
- ◆ Free rigging is prohibited.
- ◆ Forklift training is required prior to use, and at least every 3 years thereafter. Operator shall have a current training certificate.

## Welding and Cutting

- ◆ If you are in doubt as to the hazards, toxicity, or safe operating practices for any gases, consult your supervisor prior to moving forward.
- ◆ Be aware of fire risk and take precautions to reduce the risk.
- ◆ Guards are to be used whenever possible to reduce risk of fire.
- ◆ Fill out the Hot Work Permit to authorize welding or cutting operations.
- ◆ The following conditions require a Fire Watch individual, equipped with a fire extinguisher:
  - ❖ Locations where other than a minor fire might develop.
  - ❖ Combustible materials closer than 35 ft. (10.7M) to point of operation.
  - ❖ Combustibles that are 35 ft. (10.7M) or more away but are

easily ignited.

- ❖ Wall or floor openings within 35 feet (10.7M) radius expose combustible materials.
  - ❖ Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.
- 
- ◆ Fire Watch individual must remain at the site where welding or cutting operation was completed for at least 30 minutes after.
  - ◆ Use appropriate PPE, and PPE specific to the task.
  - ◆ Take efforts to increase ventilation wherever possible.
  - ◆ Hot Work Permits are required when welding or burning.
  - ◆ Employees must ensure that there are no combustibles in the areas of welding and that suitable fire-extinguishing equipment is available in your work area.

- ◆ When a special wrench is required to operate the acetylene cylinder valve, the wrench must be kept in position on the valve.
- ◆ When cracking the valve of the acetylene cylinder, the cylinder shall be opened not to exceed one and one half (1-1/2) turns.
- ◆ The protective caps must be kept on all cylinders not in use. Cylinder caps shall not be used for lifting cylinders.
- ◆ All cylinders must be properly secured to prevent tipping.
- ◆ While in use, a cylinder truck, chain or steadying device shall be used to keep cylinders from being knocked over.
- ◆ Oxygen and acetylene (or other fuel gas) cylinders in storage must be separated from each other twenty (20) feet or by a five (5) foot tall barrier which has a 30-minute fire rating.

- ◆ Propane bottles must have a guard that protects the bottles valve and regulator from damage.

## Hazard Communication

- ◆ Read the labels provided to learn the quick facts about a hazardous chemical – further information can be found in the SDS binder located in the TRICO job trailers or ask your site Foreman or Superintendent.
  
- ◆ If you will be working with or aware of any of the following hazards, be sure to refer to the Employee Health and Safety Manual to take additional precautions:
  - ❖ Hydrogen Sulfide
  - ❖ Ammonia
  - ❖ Asbestos awareness
  - ❖ Lead
  - ❖ Hexavalent Chromium

# HAZARDOUS MATERIALS CLASSIFICATION





Oxidizers



Acutely Toxic  
(severe)



Acutely toxic(harmful),  
Irritant to skin, eyes or  
respiratory tract, Skin  
sensitizer, Hazardous to  
the Ozone layer.



Toxic to aquatic  
environment





Gases Under Pressure



Explosives, Self  
Reactives, Organic  
Peroxides



Flammables, Self Reactives,  
Pyrophorics, Self-Heating,  
Emits Flammable Gas,  
Organic Peroxides



Carcinogen, Respiratory  
Sensitizer, Reproductive  
Toxicity, Target Organ  
Toxicity, Mutagenicity  
Aspiration Toxicity



Burns Skin, Damages  
Eyes, Corrosive to Metals

## Spill Response

- ◆ Persons in the immediate vicinity of a spill should immediately evacuate the premises (except those that have training in spill response).
- ◆ All chemical spills, regardless of size, are to be reported to your supervisor as soon as possible.
- ◆ If the spill is of medium or large size, or is hazardous, immediately notify emergency response personnel by calling 911.
- ◆ Refer to the jobsite SDS binder in the TRICO job trailers to learn about the chemical spilled and appropriate actions to take.

## Hazardous Dusts & Silica

- ◆ Occasionally construction activities generate hazardous dusts.
- ◆ The generation and breathing of asbestos, lead or silica containing dusts should be avoided to the extent that the work allows.
- ◆ When construction work can reasonably be anticipated to generate hazardous dusts, the job superintendent must plan ahead, so that specifically trained abatement workers can deal with the situation prior to continuing normal work activity.
- ◆ TRICO employees are not allowed to remove or abate asbestos or lead containing materials above the permissible exposure limits.
- ◆ Breaking or cutting may expose workers to silica containing dusts. When such work is performed employees must use safe work practices, e.g. wet methods, proper

respiratory protection, equipment with dust collecting devices, proper hygiene and disposable clothing to limit/control exposure.

- ◆ Employees not involved in the actual work should stay away and upwind from the task site.
  
- ◆ Signs and barriers may also have to be installed to prevent exposure to the public. Note: inhaling silica containing dust can lead to significant health problems without the knowledge of “early warning” symptoms.
  
- ◆ For Silica Specified Exposure Control Methods, refer to TABLE 1, provided in the Employee Health & Safety Manual.

## Air Quality

- ◆ Whenever feasible, take administrative or engineering controls to minimize hazardous dusts in the air (such as wet sawing, vacuuming)
- ◆ Respirators shall be used by personnel who may be exposed to hazardous or toxic materials exceeding the permissible exposure limits established by OSHA/WISHA or other agencies, when engineering controls such as isolating the operation or general ventilation of the area are not successful in adequately protecting personnel. In addition, personnel shall observe and enforce the following rules.
- ◆ Personnel required to wear respiratory protection shall be trained, fit tested, and medically qualified prior to wearing such devices.

## Occupational Noise

- ◆ Employees are often exposed to on-the-job noise that can permanently damage hearing. When we are exposed to loud noises over long periods of time, we are at increased risk of losing our ability to hear.
- ◆ The tiny cells in our inner ear that are most likely to be damaged are those that allow us to hear noises in the frequency range of the human voice.
- ◆ It is important that workers wear hearing protection devices when exposed to noise from loud tools.
- ◆ Employees shall use personal hearing protectors (ear plugs, muffs) to guard against high noise levels when engineering controls are not feasible or while such controls are being evaluated and implemented.
- ◆ TRICO provides personal hearing protection when necessary for the task.

- ◆ Hearing protection should not cause you discomfort. If it does, ask for other options.
- ◆ If foam earplugs are used, they should be inserted correctly into the ear.
- ◆ Earmuffs are easy to use but may not offer the same level of protection as ear plugs.
- ◆ Always check the Noise Reduction Rating of the earmuff or ear plug to ensure you have the right level of protection.
- ◆ Common items to consider hearing protection are: Jackhammer, air compressor, hand power tools, heavy equipment, power actuated fasteners



- ◆ **Noise Exposure Standards** – The maximum times an employee is allowed to be exposed to high noise levels without hearing protection are provided in the following table.

<b>Maximum Time</b>	<b>Maximum dBA</b>	<b>Example</b>
8 hours	85 dBA	Back Hoe (85 - 95 dBA)
4 hours	90 dBA	Front-end loader (90 -95 dBA)
1 hours	100 dBA	Circular Saw (90 - 100 dBA)
30 minutes	105 dBA	Tractor (95 - 105 dBA)
15 minutes	110 dBA	Chainsaw (110 dBA)
0 minutes	115 dBA	Jackhammer (112 dBA)

## Heat Stress

- ◆ When temperatures reach 89 degrees or more, workers must monitor themselves for heat-related illness and are encouraged to drink water more frequently.
- ◆ Heat Stroke – body system is unable to regulate the temperature and the body temperature rises to a level that is life threatening. **Symptoms** – hot, dry skin, a lack of sweating, loss of consciousness, irrational behavior. **This is a medical emergency and 911 should be called immediately.**
- ◆ Heat Exhaustion – This condition is not to be taken lightly. **Symptoms** – headache, nausea, vertigo, weakness, thirst, and giddiness. **This is a medical emergency and 911 should be called immediately.**
- ◆ Heat Cramps – usually occurs by performing hard physical labor in a hot environment. Cramps are attributed to an

electrolyte imbalance caused by sweating.  
**Remove individual from the hot environment, give water & fluids with electrolyte replacement qualities.**

- ◆ Heat Collapse (“fainting”) – the brain does not receive enough oxygen because blood pools in the extremities. As a result, the individual may suddenly lose consciousness. **Remove individual from the hot environment, give water & fluids with electrolyte replacement qualities.**
- ◆ Heat Rashes – the most common problem in hot work environments, and usually occur in areas with restrictive clothing and excessive sweating. In most cases, the rash will disappear when the individual returns to a cool environment. If a rash persists, the individual should seek medical care.
- ◆ Heat Fatigue – a factor that predisposes an individual to more serious heat related illnesses. **Symptoms** – impaired performance of normally skilled tasks.

**Remove the heat stress before a more serious heat-related condition develops.**

## **PREVENT HEAT RELATED ILLNESS**

**During rest periods, move to a cool and shaded area**

**Drink 1 cup of water every 15 minutes when exposed to high heat – Drink small amounts frequently to avoid feeling thirsty!**

**Monitor co-workers for signs of heat related illnesses – report immediately**

**Wear light clothing when appropriate**

**Use sunscreen if desired**

**Stay in good physical condition**

## Emergency Procedures

- ◆ Assess the situation – determine if the scene is safe for you and others.
- ◆ Call 911 – provide your physical address.
- ◆ Call your Supervisor or TRICO Companies, LLC Headquarters (360) 757-2373 immediately.
- ◆ Provide First Aid / CPR if necessary.
- ◆ Do Not Move Victim, Unless Immediate Danger.
- ◆ Do Not Speak to Media Questions.

### Buy Time Statement

The incident just happened, I am not prepared to answer any questions at this time. Please stay in a safe area outside the fenced area. A company spokesperson will be back with you shortly with an update. Thank-you.

## Company Emergency Contacts

NAME	PHONE
TRICO Office	(360) 757-2373
John Tull FACT Consulting	(509) 961-1821
Brad Phillips Principal   COO	(206) 890-9384

## What do I do if an Inspection Agency comes onsite?

- ◆ DO NOT let the inspector walk the job until TRICO's designated safety representative arrives.
  - ❖ Make inspector comfortable in the job trailer if available.
  - ❖ Have a TRICO representative walk the jobsite for hazards and corrections.
  
- ◆ Notify supervisor and TRICO Project Manager immediately.
  
- ◆ Ask the Inspector for the reason of the visit.
  
- ◆ If inspector states they need information (printed materials), inform them that those will come from the office.
  
- ◆ Remember that if the Compliance Inspector is on your site, you probably

have a condition that can be viewed from the road or was reported.

- ◆ When asked questions by the inspector, answer the question ONLY as asked, and only after company safety representative arrives, do not fill in with additional information.
- ◆ Always have another TRICO employee present when talking with inspector.





## ACKNOWLEDGEMENT

I acknowledge my responsibility to read and understand the contents of this Employee Safety Handbook. While working for TRICO Companies, LLC, I will follow the procedures outlined in this booklet. Failure to follow the safe practice in this booklet may result in disciplinary action or termination. I understand that failure to report a jobsite injury or illness to my supervisor may also result in disciplinary action or termination.

EMPLOYEE: \_\_\_\_\_

DATE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

SUPERVISOR: \_\_\_\_\_

DATE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_













