SAFETY TIPS

Fall Protection

Why is fall protection important?
Falls are among the most common causes of serious work related injuries and deaths. Employers must setup the workplace to prevent employees from falling off of overhead platforms, elevated work stations or into holes in the floor and walls.

Fall Prevention
Falls and falling objects can result from unstable working surfaces, ladders that are not safely positioned, and inappropriate use of fall protection. Workers are also subject to falls or to the dangers of falling objects if sides and edges, floor holes, and wall openings are not protected.

Fall protection systems are designed to protect workers from falls from elevated work areas. OSHA requires that fall protection be provided at elevations of 4 feet in general industry workplaces, 5 feet in shipyards, 6 feet in the construction industry, and 8 feet in longshoring operations. OSHA also requires that fall protection be provided when working within 6 feet of a leading edge and over dangerous equipment and machinery regardless of the fall distance height. These safety tips are based on the construction industry standard.

Housekeeping
Housekeeping is a key component of any comprehensive safety programs. The negative implications of poor housekeeping can be detrimental to the overall work environment. An orderly and properly maintained workplace shows pride and respect for yourself and others.

Poor housekeeping practices can result in:

- A meticulous, scrupulous OSHA inspection based on the compliance officer's first impression
- Decrease in production from time wasted maneuvering over and around someone else's mess, and time spent looking for proper tools and materials
- Injuries from using improper tools because the proper tool can't be found
- Injuries when employees slip, trip, fall, are struck by or strike against misplaced objects, such as tools, material, equipment and machinery.
- Low morale and poor attitude towards safety (i.e. "No one else cares, so why should I?")
- Negative image which can affect future work due to bad reputation
- Poor quality because of schedule delays
- Time spent investigating and reporting accidents

Unprotected Sides, Wall Openings and Floor Holes
Almost all sites have unprotected sides and edges, wall openings, or floor holes at some point during construction. If these sides and openings are not protected at your site, injuries from falls or falling objects may result, ranging from sprains, broken bones and even death.

Covers for Holes:

- Cover or guard floor holes as soon as they are created.

- Covers must be capable of supporting without failure at least twice the weight of workers, equipment and materials that may be imposed.
- All covers must be secured when installed to prevent accidental displacement by wind, equipment or workers.
- All covers must be color-coded or marked with the word “hole” or “cover”.

Use at least one of the following whenever employees are exposed to a fall of 6 feet or more, above a lower level:

- Fall Arrest Systems
- Guard or cover any openings or holes immediately
- Guardrail Systems
- In general, it is better to use fall prevention systems, such as guardrails than personal fall arrest systems such as safety nets, harnesses and lanyards
- Safety Net Systems

Guardrail systems - Guardrail systems consist of toprail, midrail and toe board.

- The midrail must be 21 inches plus or minus 3 inches above the working surface.
- The must be capable of withstanding a load of at least 150 pounds applied in an outward downward direction at any point on the top rail
- The toprail must be approximately 42 inches above the working surface plus or minus 3 inches.
- The toprail must be capable of withstanding a load of at least 200 pounds applied in an outward downward direction at any point on the top rail with minimal deflection and never below the 39 inch height requirement.
- Toe boards must be a minimum of 3 1/2 inches in vertical height from its top edge to the floor level.
- When installing guardrails, workers should be provided with alternative means for fall protection such as fall restraint, fall arrest or aerial lifts.

Wire Rope Perimeter Guardrail

- A wire rope railing must be installed approximately 42 inches high around the outer edge temporary planked or metal decked floors of multi-floored during structural steel operations.
- Flagging must be placed at 6 foot intervals along the horizontal length of the cable.
- Once the permanent floor is in place, a toe board must be installed.
- The wire rope railing shall not be used as means for securing personal fall arrest systems unless it has been by a qualified person to be used in that manner.

Personal Fall Arrest System (PFAS) - Personal fall arrest systems must limit maximum arresting force on a worker to 1,800 pounds. A Personal Fall Arrest System is comprised of three (3) key components:

1. Anchorage/anchorage connector
2. Body wear
3. Connecting device

Anchorage: Also known as a tie-off point (i.e. I-beam, lifeline, etc.)
Anchorage Connector: Joins the connecting device to the anchorage (i.e. beam anchor, D-bolt, hook anchor, etc.)
Body Wear: The personal protective equipment worn by the worker (i.e. full-body harness)
Connecting Device: The critical link which joins the body wear to the anchorage/anchorage connector (Ex: shock-absorbing lanyard, fall limiter, self-retracting lifeline, rope grab, etc.)

- All labels, tags and warnings must be present and legible.
- All PFAS must be inspected prior to each used.
- Anchorages used for attachment of personal fall arrest equipment must be capable of supporting at least 5,000 pounds per worker.
- Follow the manufacturer's recommendation for removal from service. Remove any harness and lanyard that has been subjected to a fall.
- PFAS must be rigged so a worker can neither free fall more than 6 feet nor contact any lower level.
- PFAS must not be attached to guard rail systems.
- Should be selected based on the work to be performed and the work environment.
- The anchorage connector should be positioned to avoid a "swing fall."
- Visually inspect the body harness before each use for burns, holes, ruts in the stitching, cuts and chemical damage.

Ladders

You risk falling if portable ladders are not safely positioned each time they are used. While you are on a ladder, it may move and slip from its supports. You can also lose your balance while getting on or off an unsteady ladder. Falls from ladders can cause injuries ranging from sprains to death.

- Before each use, inspect ladders for cracked, broken, or defective parts.
- Do not apply more weight on the ladder than it is designed to support.
- Make sure that the weight on the ladder will not cause it to slip off its support.
- not possible.
- Position portable ladders so the side rails extend at least 3 feet above the landing
- Secure side rails at the top to a rigid support and use a grab device when 3 foot extension is
- Use only ladders that comply with OSHA standards.