Fall Protection Programs

Why Have a Fall Protection Program?

OSHA requires the creation of a fall protection program to inform employees about:

- Fall hazards identified on the job site and any changes that may occur.
- The use of fall protection systems or alternatives for the job site.
- Erecting, disassembling and maintaining equipment.
- The process for alerting management about damaged fall protection systems.
- Available training on assigned roles in the fall protection program.

Implementing a Program

Employers have an obligation to keep their employees aware of fall protection programs and best practices for ensuring safety when falls are a risk. Taking steps to put a strong program in place can help maintain compliance with OSHA standards and, most importantly, will keep your work force safe and secure.

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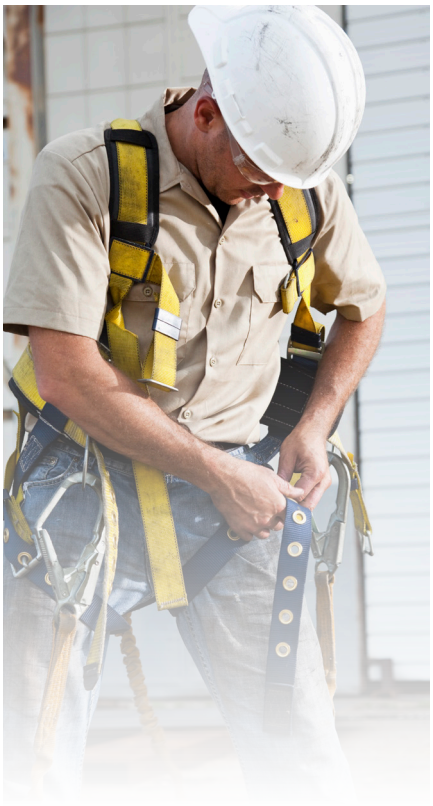

Certifying Your Program
A written certification record must be completed with the name of the employee trained, the date of the training and the signature of the person who conducted the training or the signature of the employer.

If an employer believes that an employee who has already received training doesn't understand the skills needed to ensure proper fall protection, the employer must retrain that employee. Retraining is also required when changes in the workplace, work site or types of equipment used render previous training obsolete.

Program Requirements
Certain industries have specific requirements related to fall protection:

- Construction — working at a level six or more feet high.
- Industrial settings — working at a level four or more feet high. Also, every open-sided floor or platform that is four feet above adjacent ground level shall be guarded by a standard railing on all open sides except where there is entrance to a ramp, stairway or fixed ladder.

NOTE: OSHA allows the use of work positioning systems, travel restricting systems (fall restraint), fixed-ladder climbing systems, hole covers and safety nets if engineering controls cannot be used. This is acceptable for both construction and industrial standards.

Guidelines for Fall Protection

Take a Planning Approach
In the planning stage, you should provide for an alternate approach to the work through the use of engineering controls:

- Implement at the design stage.
- Maximize structural pre-assembly.
- Use mechanical pin extractors for rigging disconnect.
- Design for attachment.
- Provide protection at elevation.

Identifying and Eliminating Risks
You can prevent falls by identifying and eliminating the fall hazard up front. Conduct a walk-around inspection with a checklist and discuss observations at the management level. You can also address conventional methods of fall protection and alternatives such as:

Control access zone: Typically marked off with ropes, chains or other means, this is an area designated for control used primarily with overhead brick laying and pre-cast concrete work.

Warning line systems: A means of clearly identifying fall risks for workers, this system consists of flags placed every six to 10 feet where equipment is used, and at least every six feet where equipment is not used. In doing so, remember to:

- Use high-visibility material.
- Rig and support the material so its lowest point is no less than 34 inches from the ground.
- Erect the flags around all open sides of a roof work area — no less than six feet from the roof edge (see below).

Safety monitoring program: Charge an individual with warning employees of the fall hazard. This person must be able to communicate directly with the employees.

If a personal fall system is used for fall protection, it must be able to:

- Limit maximum arresting force to 900 pounds when used with a body belt.
- Limit maximum arresting force to 1,800 pounds when used with a body harness.
- Be rigged to limit the free fall to six feet or so no contact is made with the lower level.
- Have the strength to withstand twice the potential impact of a six-foot free fall or the free fall distance permitted by the system, whichever is less.

Guardrail systems: You must provide guardrail protection when employees are working on or around scaffolds, elevated work platforms, unprotected sides of ramps, stairways, platforms, openings and holes. In doing so, the following specifications are important to keep in mind:

- Top rail should be 42 inches from working surface with a midrail located halfway between the top rail and the surface.
- Top rail must withstand 200 pounds and the midrail, 150 pounds.
- Rail must be smooth to prevent cuts and must not project over support posts.
- Chain, gate or removable sections across openings at hoisting areas should be erected around all sides of a hole.

Personal Fall Arrest Systems

Personal fall arrest systems, which are used to protect individuals who may be at risk for a fall, consist of three basic parts:

- An anchorage structure or component.
- A connecting device, such as a lanyard or lifeline.
- A full body harness.

The key to designing a reliable fall arrest system begins with selection of the anchorage. The point for securing lifelines and lanyards, the anchorage should be positioned on an independent structure. When selecting an anchorage point:

- The required strength the anchor must withstand will depend on the potential forces and integrity of the anchor.
- Anchor points must remain independent of the working platform.
- Total height must be reviewed to ensure the fall protection will prevent the wearer from coming into contact with the ground or other objects.
- Free fall should be minimized as much as possible.
- Users must be trained on what is acceptable.

Common hazards involving lifelines:

- Insufficient anchorage strength.
- Lifeline installed incorrectly.
- Sharp edges not protected.
- Lines knotted at the anchor points.
- Lifelines overloaded with employees.

Common hazards involving lanyards:

- Incorrect length.
- Incorrectly tying knots to shorten the length.
- Sharp edges not protected.
- Failure to follow manufacturer's instructions.
- Exposure to solvents, acids, welding, cutting and concrete.

Selecting a body harness

Selection of a body harness should be determined based on anticipated usage, as well as the type of fall arrest system used. A full body harness distributes the force of the fall over the entire body and has a sliding D-ring, designed to eliminate excess whipping of the neck.