



Fall Protection in the Construction Industry

The leading cause of fatalities in the construction industry is falls. In 2010, 635 fall related deaths occurred, while in 2009 there were 645 fall related deaths. The sad part of the story is that most of these deaths could have been prevented.

How do these accidents occur?

Employees in the construction industry have a high risk of falls because they have exposure to many hazards as buildings are being constructed. The hazards are compounded when there are many contractors on a project. One contractor may create a hazard and employees of other contractors on the site may also be exposed. Hazardous conditions that may result in fatal falls include:

- Open edges on floors
- Leading edges of steel deck construction
- Improperly constructed scaffolds
- Holes in walking and working surfaces
- Open elevator shafts
- Skylights
- Roofing operations
- Improperly used fall arrest systems

How can these hazards be controlled?

There are two primary methods of reducing fall related injuries; fall prevention and fall arrest systems.

Fall prevention means the worker is protected from the fall by some means that keeps the worker away from the hazardous area. Fall prevention systems must be used to prevent a fall of six feet or more to the ground or a lower surface. Examples are guardrails and mid-rails on scaffolds and the open edge of floors, guardrails around skylights, guardrails on scissors lifts, covers over floor openings, and restricted zones in roofing operations. These types of protective devices have specific design requirements as per the OSHA standards for construction. For example, guardrails must be between 39 and 45 inches above the walking and working surface, and must be able to withstand a force of more than 200 pounds. The mid-rail must be halfway between the floor and the top rail and withstand a force of 150 pounds. Covers over floor holes must withstand twice the expected weight of the personnel and equipment that may pass over the cover. The hole cover should be marked with the word 'HOLE'.

Fall arrest systems are full body harnesses attached by a lanyard to an anchor point, that prevent a worker from free-falling more than six feet, or safety nets that catch a worker after a fall of no more than 30 feet. The fall arrest systems have specific design requirements. The fall arrest system must have a maximum decelerating force of 1800 pounds, and must bring a worker to a complete stop within 3.5 feet. Anchorage points must withstand a force of 5,000 pounds. Guardrails or scaffold components should not be used as anchorage points.

Training

Training is an important component of an effective fall protection program. Employees must know how to use the systems correctly, how to inspect the equipment and the limitations of fall prevention and fall arrest systems.

For further discussion of your specific needs and information on program development please contact Dan Bruun, CIH Vice President at 888.873.9983 ext 17, or dbruun@1ssh.com .

The logo for 1Source Safety and Health, Inc. is centered on the page. It features a large, stylized '1' followed by the word 'Source' in a serif font. Below this, the words 'Safety and Health, Inc.' are written in a smaller, sans-serif font. The entire logo is enclosed within a large, light blue circular outline.

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