FALLS FROM SCAFFOLDS – RISKS AND PREVENTION

The Problem for Construction Workers

Falls are the leading cause of injuries and fatalities in the construction industry, accounting for one-third of all on-the-job deaths. Falls from scaffolds are the third leading cause of construction falls.

Scaffolds or staging are devices used to provide an elevated working surface. Between 2011 and 2016, falls from scaffolds resulted in 298 construction worker deaths and 7,450 injuries. Falls from scaffolds occur when the scaffold collapses due to instability and/or overloading, a worker is struck by falling tools, work materials, or debris, a worker is electrocuted due to the proximity of the scaffold to overhead power lines, and/or there is a lack of fall protection.

Injuries and Fatalities are Preventable

The Occupational Safety and Health Administration (OSHA) has a number of standards related to scaffold use. The requirements for specific types of scaffolds can be found at A Guide to Scaffold Use in the Construction Industry. For all scaffolds, however, employers are required to:

- Have a qualified person* train workers who perform work on scaffolds to recognize the hazards and use scaffolds safely.
- Ensure only experienced and trained workers are involved in erecting, moving, dismantling, or altering scaffolds under the supervision of a competent person†. The competent person must also train the workers engaged in these activities.
- Have a competent person inspect the scaffold and scaffold components for visible defects before each work shift and after any occurrence that could affect its structural integrity.
- Provide a safe way to access scaffold platforms, such as a ladder, stair tower, etc. that are more than 2 feet above or below a point of access.
- Ensure scaffolds and their components support at least 4 times the maximum intended load. They must not be loaded in excess of their maximum intended loads or rated capacities, whichever is less.
- Ensure each scaffold platform and walkway is at least 18 inches (46 centimeters) wide.

- Use proper fall protection. If the working deck on the scaffold is 10 feet or higher, employers must have some type of fall protection for workers. Fall protection may include a guardrail system or a personal fall arrest system (PFAS).
- Ensure that each platform on all working levels of scaffolds are fully planked or decked between the front uprights and the guardrail supports. The space between adjacent platform units and the space between the platform and the uprights must be no more than 1 inch (2.5 cm) wide.
- Protect workers from objects falling from scaffolds by installing, for example, toeboards, screens, guardrail systems, canopy structures, or barricades.

CPWR Research and Resources

- Scaffolds Hazard Alert Card – a brief, image-driven handout to help workers understand how to work on scaffolds safely. Available in English and Spanish.
- Scaffolds Toolbox Talk – short discussion guide for use by foremen or supervisors to raise worker awareness and discuss site-specific actions to identify and address scaffold hazards. Available in English and Spanish.
- Scaffolds Topic Page on stopconstructionfalls.com, a website dedicated to preventing falls in construction.
- Fatality Map – interactive map showing fall fatalities across the nation, including ones associated with scaffolds.
- Mast Climbing Scaffolds – the Masonry r2p Partnership developed this resource to help contractors understand the benefit of this type of scaffold when used safely and in accordance with manufacturer specifications.
- An Evaluation of Scaffold Safety at Construction Sites – a study that evaluated common scaffold safety practices in construction.

* OSHA defines a “qualified person” as “one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.”

† OSHA defines a "competent person" as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.”
Other Resources

- **Scaffolding** – OSHA’s main website for scaffolding.
- **Scaffolding eTool** – OSHA
- **Preventing Worker Injuries and Deaths Caused by Falls From Suspension Scaffolds** – the National Institute for Occupational Safety and Health [NIOSH]
- **Scaffolding Checklist** – NIOSH, 2004
- **Scaffold & Access Industry Association (SAIA)**

About CPWR

CPWR - The Center for Construction Research and Training [CPWR] is a 501(c)3 non-profit dedicated to reducing injuries, illnesses, and fatalities in construction, and currently serves as NIOSH’s National Construction Center. Through research, training, and service programs, CPWR works in partnership with industry stakeholders, safety and health professionals, academics, and key government agencies, to identify and find solutions for occupational hazards and improve the safety and health of construction workers. For more information, please visit: [www.CPWR.com](http://www.CPWR.com)

References


