

Chapter 11 : FALL PROTECTION

INTRODUCTION/OVERVIEW

Falls from elevations are a major safety hazard in all industries. From 1980-1985, falls represented about 10% of all traumatic occupational deaths. In construction, falls account for about one-third of the deaths.

Fall hazards exist when work must be performed on elevated surfaces. In general, fall protection requirements for an elevated surface is effective in the Construction Industry when the surface is 6 ft. above the lower level. In General Industry, 4 ft. is the rule. Construction allows protection in the form of guardrails, safety nets, personal fall arrest systems, positioning devices, or a safety monitoring system. General Industry requires guardrails. Fall protection also includes protection from the hazards of falling objects. This protection is provided by toe boards at least 4 inches high at the base of a guardrail, canopies or barricades and screens.

Observing existing precautions in OSHA's General Industry and Construction Standards can prevent injury and death resulting from falls. This chapter focuses on the requirements of the Construction Standards in Subpart M, Fall Protection, whose objective is to protect all construction employees from the fall hazards associated with the following:

1. Floor openings
2. Change of elevation
3. Side rails and guardrails
4. Excavations
5. Open-sided floors and pits
6. Roofs; both flat and sloped

It also identifies the requirements found in Part 1910.23, Guarding floor and wall openings and holes. The information on Personal Fall Arrest Systems (PFAS) will also help workers in general industry that work on powered platforms (1910.66.)

Upon mastery of this chapter's contents, you will be able to recognize fall hazards, identify the requirements for fixed system fall protection, personal fall protection systems and safety monitoring systems.

Additional information for fall protection can be found in the following subparts:

-
1. L – Scaffolding
 2. N - Cranes and derricks
 3. R - Steel erection
 4. S - Tunneling
 5. V - Construction of electric transmission & distribution lines
 6. X - Stairway and ladders

FALL PROTECTION PROGRAM

The key elements of our safety program are hazard identification and training.

HAZARD IDENTIFICATION

As a general rule, a fall hazard exists any time a worker is at a height greater than six (6) feet. Wherever possible the hazard should be eliminated. Otherwise, personnel should be provided with and trained to use personal protective equipment.

When physical means such as engineering and design controls cannot be provided to eliminate employee hazards, then the use of personal fall protection equipment must be implemented.

Regulations under OSHA and ANSI standards will vary, depending on the job being performed and other factors. Know which regulations cover your job and comply at all times.

TRAINING

All employees who have a need to wear fall protection equipment will be trained to:

1. Select the proper equipment
2. Wear it properly
3. Understand and identify anchor points
4. Utilize proper tie-off procedures
5. Identify fall hazards
6. Learn proper equipment inspection and maintaining practices
7. Learn proper rescue procedures

OSHA's training requirements, summarized below, will be followed when training our employees.

General Requirements

1. The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.
2. The employer shall ensure that a competent person qualified in the following areas has trained each employee, as necessary.
 - a. The nature of fall hazards in the workplace.
 - b. The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used.
 - c. The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used.
 - d. The role of each employee in the safety monitoring system when this system is used.
 - e. The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs.
 - f. The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection.
 - g. The role of employees in fall protection plans.

Certification Of Training

-
1. The employer shall verify compliance with training requirements by preparing a written certification record.
 2. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the employer. If the employer relies on training conducted by another employer or other prior training, the certification record shall indicate the date the employer determined the prior training was adequate rather than the date of actual training.
 3. When the employer has reason to believe that any affected employee who has already been trained does not have the understanding and skill required, the employer shall retrain each such employee. Circumstances where retraining is required include, but are not limited to, situations where:
 - a. Changes in the workplace render previous training obsolete.
 - b. Changes in the types of fall protection systems or equipment to be used render previous training obsolete.
 - c. Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill.

FALL PROTECTION SYSTEMS

BASIC ELEMENTS

1. **Body Wear** - Personal protective gear worn by workers performing the job.
2. **Connecting Devices** - Devices that attach to the workers' protective gear, e.g. lanyards, rope grabs, retractable lifelines.
3. **Anchoring Devices** - An area that supports the entire weight of the system. Commonly called a tie-off point, the anchorage must be capable of supporting 5,000 pounds per attached worker. Eye bolts, overhead beams, and integral parts of building structures are all forms of tie-off points.