



24-Hr Fall Protection Competent Person Module 2

Fall Protection Standards

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Section 2.1 Introduction

It is dangerous for employees to engage in work activities at high elevations, as they have the potential to fall. According to a recent study by the U.S. Bureau of Labor Statistics, the construction industry experienced a concerning statistic with over 35% of workplace fatalities involving falls, slips or trips. Slip and fall construction accidents result in more than 21,000 workplace injuries each year. The Occupational Safety and Health Administration (OSHA) developed a fall protection standard to help protect workers from these fall hazards. The U.S. Army Corps of Engineers (USACE) has their own standard for employees working on USACE-owned/operated facilities.

OSHA's Fall Protection Program aims to protect employees working at heights of four feet or more in general industry (also applies to USACE employees). This requirement extends to five feet in shipyard and six feet in construction. Additionally, fall protection is mandatory when working over hazardous equipment and machinery, as well as on roofs lacking 42-inch-high parapet walls or railings. It is important to note that workers are obligated to use fall protection when it is required. The mandatory fall protection equipment varies from one worksite to another.

A Qualified Person (QP) or Competent Person (CP) must assess each worksite to determine the necessary fall protection equipment and training. OSHA defines a QP as someone with the relevant degree, certificate, or extensive experience who can effectively address fall-related issues. A CP is an individual who can identify and fix hazards in the workplace. He/she is authorized to take prompt action to eliminate the hazards and ensure the safety of employees.

Section 2.2 Fall Protection Standards

Fall protection standards are outlined in OSHA's 29 CFR 1926 (Subpart M) and 29 CFR 1910 (Subparts D and I). Additional fall protection standards for USACE jobs are listed in EM 385-1-1.

Voluntary criteria related to fall protection equipment and training are outlined in the American National Standards Institute/American Society of Safety Professionals (ANSI/ASSP) Z359 standards. Note that these criteria may be required by OSHA or USACE.

Each of these standards related to fall protection will be further explained in the next sections.

2.2.1 29 CFR 1926

Sections (§) 1926.500-1926.503 in Subpart M outline the fall protection standards for construction. They can be further broken down in the following way:

- §1926.500: Includes the scope, application, and definitions for fall protection
- §1926.501: Specifies the workplaces, conditions, operations, and circumstances where fall protection is required

- o 1926.501(b)(1) notes that the fall protection threshold is six feet for construction workers.
- §1926.502: Details the installation, construction, and use of fall protection systems
 - o §1926.502(d) indicates that body belts are only allowed to be used as a positioning device.
- §1926.503: Provides the training requirements for fall protection system installation and use

2.2.2 29 CFR 1910

OSHA's 29 CFR 1910 subparts D (§1910.21-1910.30) and I (§1910.132-1910.140) outline walking/working surfaces and Personal Protective Equipment (PPE) for the general industry, some of which is applicable for fall protection.

- §1910.21-1910.30 explain walking/working surfaces for fall protection.
 - o §1910.28(b)(1)(i) notes that the fall protection threshold for the general industry is four feet.
 - o §1910.29 describes criteria and practices for fall protection systems and falling objects.
- §1910.140: Indicates the personal fall protection systems.
 - o §1910.140(d)(3) states that body belts are only allowed to be used as a positioning device.

2.2.3 EM 385-1-1

EM 385-1-1 regulations address a variety of topics related to USACE jobs, such as:

- Policies and procedures related to safety and health
- Management of hazardous materials and hazardous waste
- Requirements for PPE
- Regulations for fall protection and scaffolding
- Safety guidelines for working with electricity
- Procedures for fire safety and responding to emergencies
- Requirements for medical treatment and first aid
- Measures for environmental protection and preventing pollution

2.2.4 ANSI/ASSP Z359

The ANSI/ASSP Z359 standards on fall protection equipment are extensive and encompass requirements relevant to climbing, work positioning, fall arrest, rescue, evacuation, and other fall hazards. Furthermore, these standards cover training, as well as the recognition and reduction of hazards to prevent injuries when working at elevated heights.

ANSI standards are not mandatory by law, but they are widely used as the foundation for industry standards and best practices. Many OSHA and EM 385-1-1 standards reference ANSI standards.

Section 2.3 Employer Requirements

Employers must provide fall protection systems that meet the criteria in §1926.502. They must ensure walking/working surfaces can safely support employees before allowing work.

Employers also need to protect employees from falls if they are working at heights of six feet or more above lower levels (4 feet or more above lower levels for USACE jobs). They are obligated to provide the fall protection listed below and workers are required to use it in the following locations:

- **Unprotected sides and edges:** Guardrail systems, safety nets, or Personal Fall Arrest Systems (PFAS)
- **Leading edges:** Guardrail systems, safety nets, or PFAS unless infeasible
 - If infeasible, a compliant fall protection plan is required.
- **Hoist areas:** Guardrail systems or PFAS
- **Holes:** PFAS, covers, or guardrails
 - Covers help prevent tripping or objects falling through holes.
- **Formwork and reinforcing steel:** PFAS, safety nets, or positioning device systems
- **Ramps, runways, and walkways:** Guardrail systems
- **Excavations:** Guardrails, fences, barricades, or covers
 - Excavation sites are not easily visible and include wells, pits, and shafts.
- **Dangerous equipment:**
 - Guardrails or equipment guards if less than six feet above dangerous equipment
 - Guardrails, PFAS, or safety nets if six feet or more above dangerous equipment
- **Overhand bricklaying and related work:** Guardrails, safety nets, PFAS, or work in a Controlled Access Zone (CAZ)
 - If employees are reaching more than ten inches below the working surface, they must use guardrails, safety nets, or PFAS.
- **Roofing on low-slope roofs:** Guardrails, safety nets, PFAS, or a combination of warning lines and other systems
 - On roofs 50 feet or less in width, a safety monitoring system alone is allowed.
- **Steep roofs:** Guardrails with toeboards, safety nets, or PFAS
- **Precast concrete erection:** Guardrails, safety nets, or PFAS unless infeasible
 - If infeasible, a compliant fall protection plan is required.
- **Residential construction:** Guardrails, safety nets, or PFAS unless infeasible.
 - If infeasible, a compliant fall protection plan is required.



- **Wall openings:** Guardrails, safety nets, or PFAS if the outside bottom edge is six feet or more above lower levels and the inside bottom edge less than 39 inches above the working surface
- **Walking/working surfaces not otherwise addressed:** Guardrails, safety nets, or PFAS

Employers are mandated to provide employees with protection from falling objects. When employees are at risk of falling objects, their employer must ensure that they wear hard hats and put in place one of the following measures:

- Install toeboards, screens, or guardrails to stop things from falling
- Set up a canopy structure and keep objects away from the edges
- Block off the area where objects could fall and keep objects away from edges