Fall Protection

Falls in Construction

Falls are the leading cause of deaths in the construction industry.

Most fatalities occur when employees fall from open-sided floors and through floor openings.

Falls from as little as 4 to 6 feet can cause serious lost-time accidents and sometimes death.

Open-sided floors and platforms 6 feet or more in height must be guarded.

Fall Protection

This presentation will discuss:

- **The working conditions that prompt use of fall protection**
- **Options that are available to protect workers from falls**

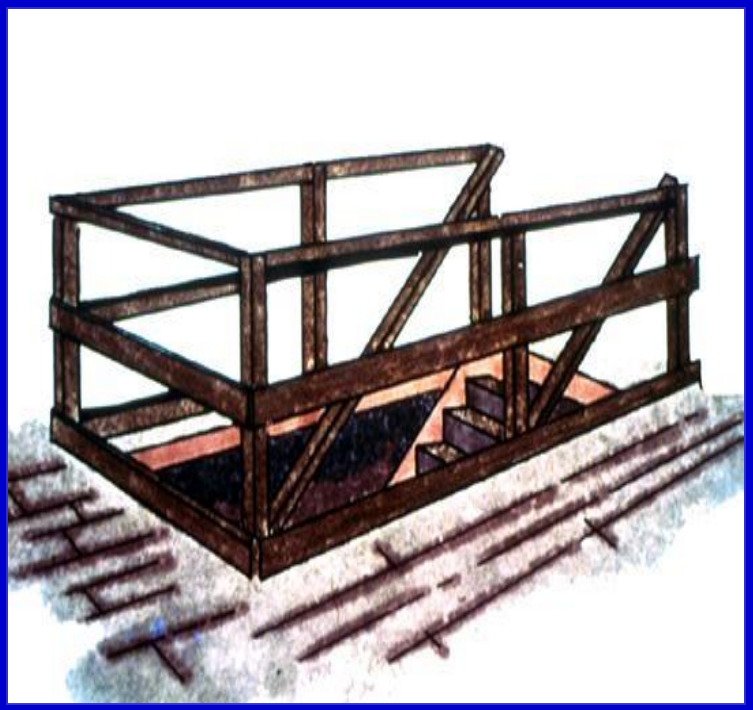
Fall Protection

At the end of this topic, you will be able to:

- **List at least four methods of fall protection available for protecting workers**
- **State the main criteria that prompts use of fall protection for construction workers**

Fall Protection Options

Personal Fall Arrest System (PFAS)



Guardrails

Safety Net

Fall Protection Planning

Fall protection systems and work practices must be in place before you start work.

Personal Fall Arrest Systems

- You must be trained how to properly use PFAS.
- PFAS = anchorage, lifeline and body harness.

Safety Line Anchorages

Must be independent of any platform anchorage and capable of supporting at least 5,000 lbs. per worker

Guardrails

- Top rails between 39 and 45 inches tall
- Toeboards at least 3 1/2 inches high

Safety Nets

Place as close as possible, but no more than 30 feet below where employees work

When Fall Protection is Needed

- Walkways & ramps
- Open sides & edges
- Holes
- Concrete forms & rebar
- Excavations
- Roofs
- Wall openings
- Bricklaying
- Residential Construction

Walkways and Ramps

Guard ramps, runways, and other walkways

Fall Protection - Residential Construction

In residential construction, you must be protected if you can fall more than 6 feet

Unprotected Sides & Edges

Unprotected sides and edges must have guardrails or equivalent

Sides & Edges - Improper Guarding

This 1/4" nylon rope alone is not a proper way to guard this open floor

Sky Lights and Other Openings

- Holes more than 6 feet high must be protected
- This opening could be made safe by using a guardrail, or strong cover

Floor Holes

- Cover completely and securely
- If no cover, can guard with a guardrail

Concrete Forms and Rebar

- Use PFAS when working on formwork or rebar
- Cover or cap protruding rebar

Excavations

Guard excavations more than 6 feet deep when they are not readily seen because of plant growth or other visual barriers

In addition to needing guarding, this excavation is not properly shored

Roofs

If you work on roofs and can fall more than 6 feet, you must be protected

Wall Openings

If you work near wall openings 6 feet or more above lower levels you must be protected from falling

Good Work Practices

- Perform work at ground level if possible

  Example: building prefab roofs on the ground and lifting into place with a crane
- Tether or restrain workers so they can't reach the edge
- Designate and use safety monitors (This is less desirable of all the systems)
- Use conventional fall protection

Training

Employers must provide fall protection training

The training is to teach you:

- **How to recognize hazards**
- **How to minimize hazards**

The training must cover:

- **Fall hazards**
- **Fall protection systems**
- **Use of fall protection devices**

Summary

- If you can fall more than 6 feet, you must be protected
- Use fall protection on:
  - walkways & ramps, open sides & edges, holes, concrete forms & rebar, excavations, roofs, wall openings, bricklaying, residential construction
- Protective measures include guardrails, covers, safety nets, and Personal Fall Arrest Systems