

Scaffolds

10-Hour Construction Outreach

Scaffolds



source: www.elcosh.org/NIOSH/John Rekus

Scaffolds

- Lesson Overview
 - Competent person
 - Basic types of scaffolds
 - Scaffold hazards
 - Methods of protecting against scaffold hazards
 - Employer requirements



NIOSH/John Rekus/elcosh.org

Competent Person

- Oversees assembly, disassembly, inspection, and safe use of scaffolds
- Trains all employees who erect, disassemble, move, operate, repair, maintain, inspect, or work on scaffolds

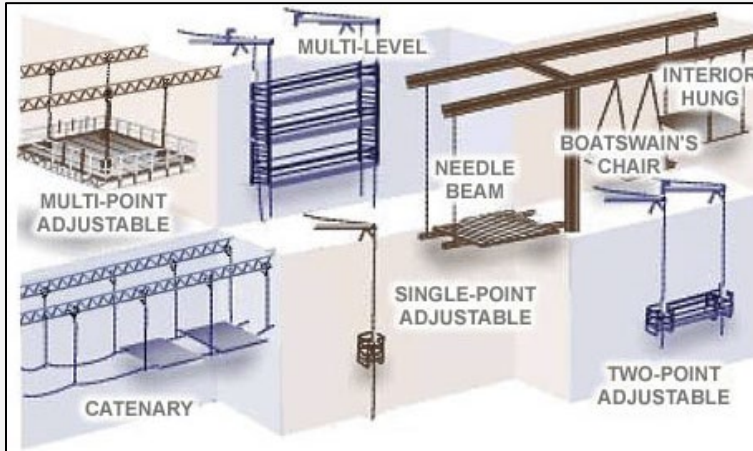


Source: OSHA

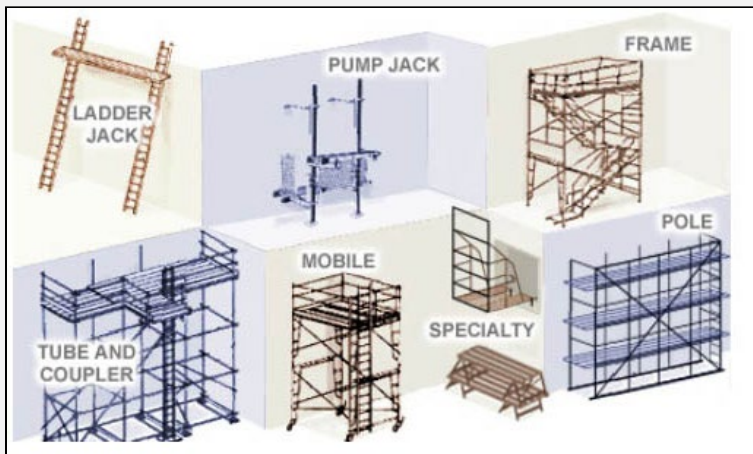
Competent Person

- Process for designating an employee as the competent person:
 - Employer appointed
 - Capability to identify hazards
 - Executes qualified person design
 - Authority to take prompt corrective action

Basic Types of Scaffolds



Suspended



Supported



Aerial lifts

Source: OSHA

Hazards Associated with Scaffolds

- Falls
- Falling object(s)
- Electrical hazards
- Collapse hazards
- Planking hazards
- Weather conditions
- Collisions or struck-by



Source: OSHA

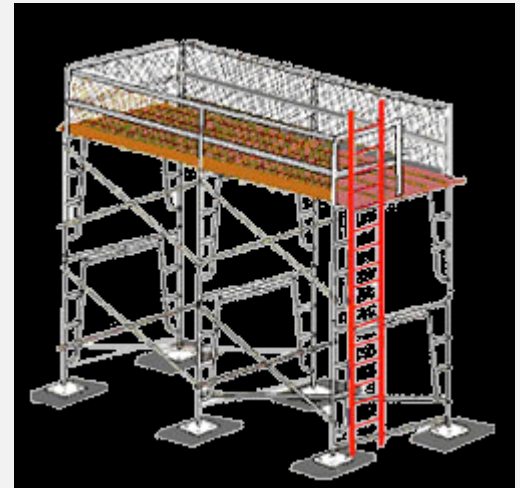


Reducing and Eliminating Hazards

- Proper access
- Guardrails
- Personal Fall Arrest System (PFAS)
- Protection from falling objects
- Protection from electrical hazards
- Precautions for moving scaffolds
- Safe scaffold construction and disassembly

Proper Access

- Required when platforms are more than two feet above or below a point of access
- Examples of permitted access - ladders, stair towers, ramps, walkways
- Do not use crossbraces or unapproved ladder-like ends for access



Source: OSHA

Guardrails

- Must be installed on open sides and ends of scaffolds
- If front edge (working edge) is more than 14 inches from work, guardrail and/or PFAS system must be used



Source: OSHA

Guardrails

- Toprails
 - Supported scaffolds manufactured or placed in service after 1/1/2000 must be 38-45" above platform
- Midrails
 - When used
 - Halfway between toprail and scaffold platform
 - Crossbracing, when used as a toprail or midrail, must meet certain height requirements

Personal Fall Arrest System (PFAS)

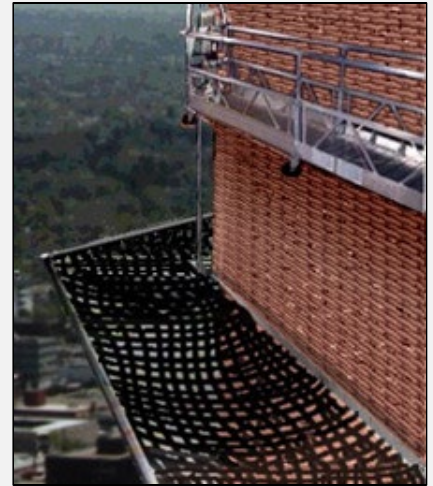
- Components
- Selection of fall protection
- Engineering or qualified person design
- When to inspect
- Free-fall limit



Source: OSHA

Protection From Falling Objects

- Protection must be provided when there is potential of being struck by falling objects
- Methods of protection
 - Barricades, toeboards, screens or paneling, canopy or mesh nets, placement of large, heavy objects
- Wear a hardhat when working around or below scaffolds



Source: OSHA

Protection From Electrical Hazards

- Minimum distance based on voltage
 - Insulated lines
 - Uninsulated lines
- When exceeding minimum distance as necessary to perform work, utility company must be notified to
 - De-energize or relocate line

OR

 - Install protective coverings to prevent contact



Source: OSHA

Moving Scaffolds

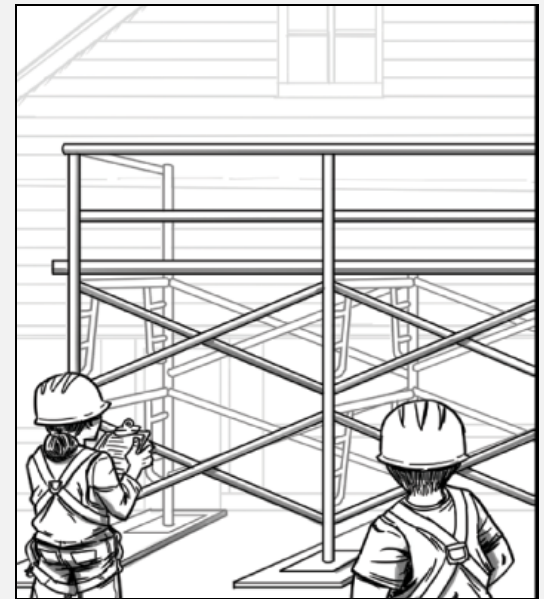
- Workers may only be on moving scaffold when
 - Level ground surface
 - Height to width ratio
 - Outriggers installed on both sides
 - Standing inside the wheel base
 - Competent person onsite



Source: OSHA

Safe Scaffold Construction and Disassembly

- Appropriate scaffold construction methods
- Provide proper scaffold access
- Use a competent person
- Manufacturers' instructions



Source: OSHA

Employer Requirements

- Comply with OSHA standards related to scaffolds
 - Training
 - Inspection
 - Designating competent person
- Comply with manufacturers' requirements and recommendations
- Follow plans designed by qualified person

Scaffold Hazard Recognition

Identify hazards
and solutions



Source: [www.elcosh.org/OTI/Southwest Education Center](http://www.elcosh.org/OTI/Southwest%20Education%20Center)

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Always Remember

- Employers must
 - Designate a competent person for scaffold
 - Ensure that employees are trained in proper assembly, disassembly, and use of scaffolds
 - Utilize strategies to prevent and reduce scaffold hazards



www.elcosh.org/Steve Clark/Laborers



www.elcosh.org/NIOSH

Knowledge Check

1. Who trains employees that work on scaffolds?
 - a. Employees do not need training
 - b. Employees are responsible for their own training
 - c. Fellow employees who have experience
 - d. Employer-designated competent person

d. Employer-designated competent person

Knowledge Check

2. Scaffolds must be designed by a ____.
- a. Competent person
 - b. Construction site manager
 - c. Qualified person
 - d. Experienced scaffold worker

c. Qualified person

Knowledge Check

3. Which of the following is NOT an example of proper access?
- a. Ladders
 - b. Crossbraces
 - c. Stair towers
 - d. Walkways

b. Crossbraces