Scaffolds

10-Hour Construction Outreach

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Scaffolds

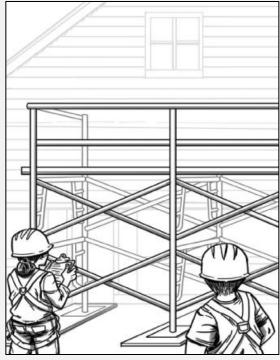source: www.elcosh.org/NIOSH/John Rekus

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
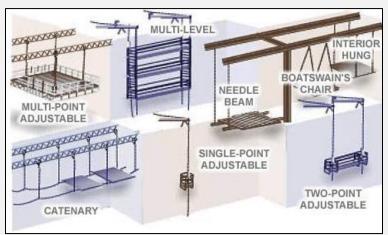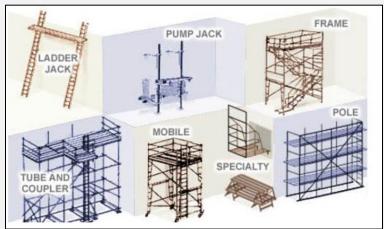

Source: OSHA

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

Source: OSHA

Aerial lifts

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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

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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

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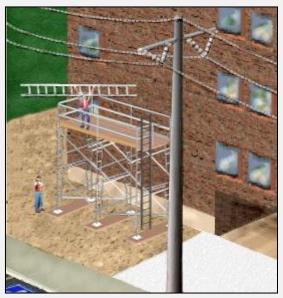
Protection From Falling Objects

- 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
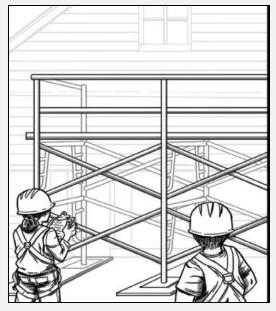
Source: OSHA

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

Scaffold Hazard Recognition

Identify hazards
and solutions

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Scaffold Hazard Recognition

Identify hazards
and solutions

Source: www.elcosh/org/OTI/Southwest Education Center

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Scaffold Hazard Recognition

Identify hazards and solutions

Source: www.elcosh/org/OTI/Southwest Education Center

Scaffold Hazard Recognition

Identify hazards
and solutions

Source: www.elcosh/org/OTI/Southwest Education Center

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