

# **Scaffolds**

## **10-Hour Construction Outreach**

# Scaffolds



source: [www.elcosh.org/NIOSH/John Rekus](http://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

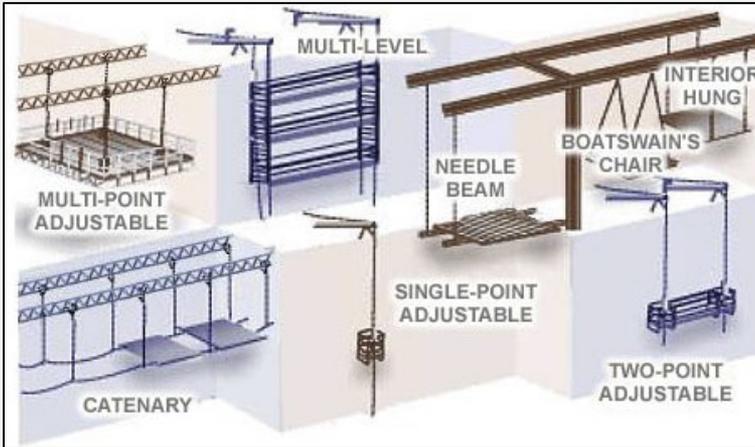


Source: OSHA

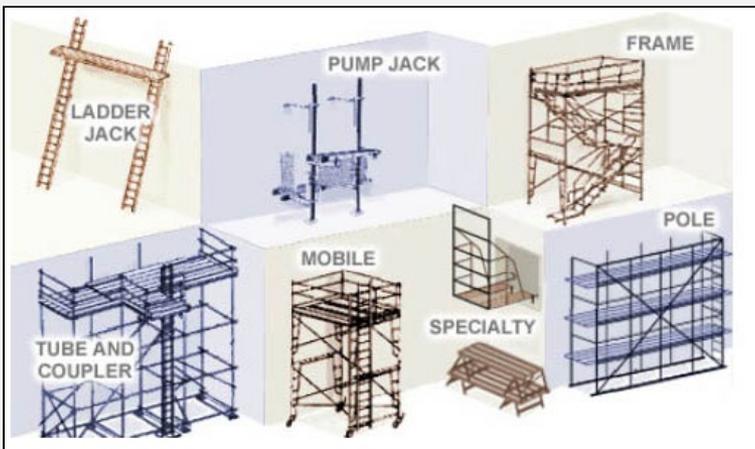
# Competent Person

- 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

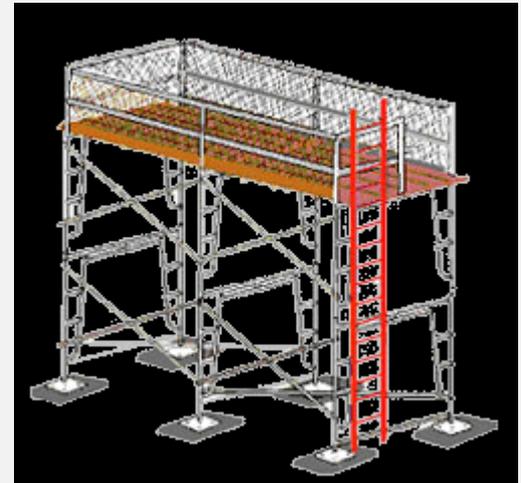


# Reducing and Eliminating Hazards

- 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 top rail and scaffold platform
  - Crossbracing, when used as a top rail or midrail, must meet certain height requirements

# Personal Fall Arrest System (PFAS)

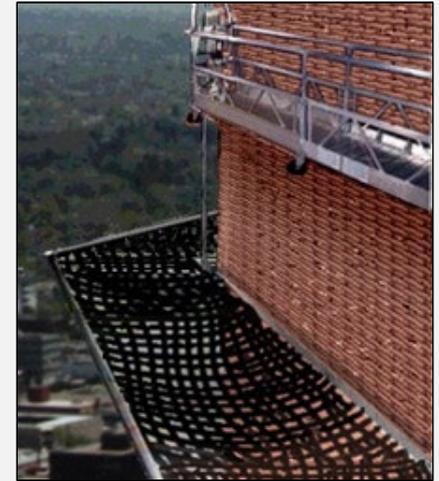
- Components
- Selection of fall protection
- Engineering or qualified person design
- When to inspect
- Free-fall limit



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

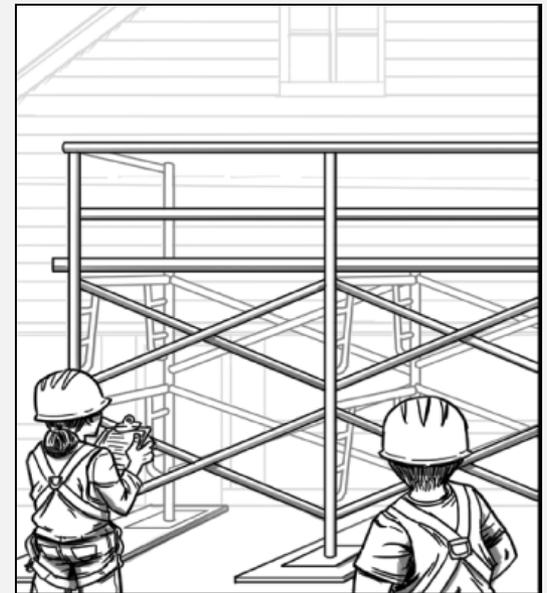
- Workers may only be on moving scaffold when
  - Level ground surface
  - Height to width ratio
  - Outriggers installed on both sides
  - Standing inside the wheel base
  - Competent person onsite



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](http://www.elcosh.org/Steve%20Clark/Laborers)



[www.elcosh.org/NIOSH](http://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**