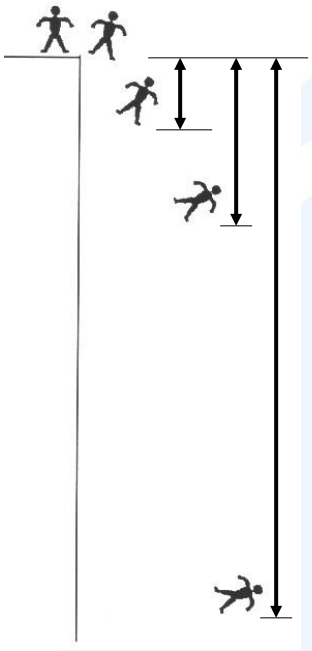
Fall Hazard Awareness Course for the Construction Industry

Course # 7405

OSHA Occupational Safety and Health Administration

Objectives

- Identify factors that contribute to common fall hazards
- Explain how to analyze work areas for fall hazards
- Discuss hierarchy of controls for fall hazards
- Describe OSHA regulations and resources that address fall protection



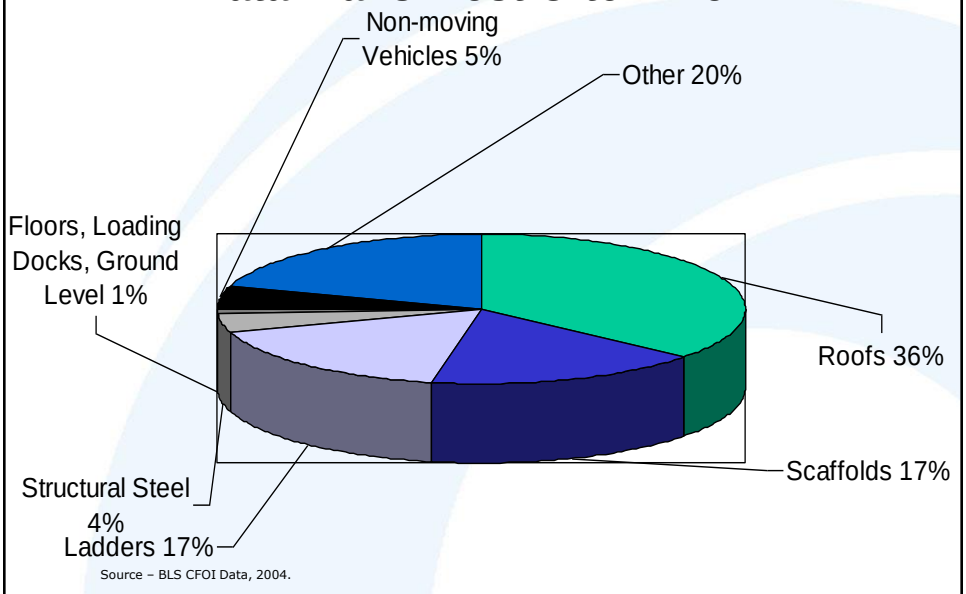
Anatomy of a Fall

- It takes most people about 1/3 of a second to become aware.
- It takes another 1/3 of a second for the body to react.
- A body can fall up to 7 feet in 2/3 of a second.

Falls

- Falls consistently account for the greatest number of fatalities in the construction industry each year
- In 2004, the Bureau of Labor Statistics reported that 1,224 workplace fatalities resulted from falls
- In addition, the hardship and cost of care for injuries related to falls is an emotional and financial burden for workers and the entire construction industry

Fatal Falls Most Often From



Source – BLS CFOI Data, 2004.

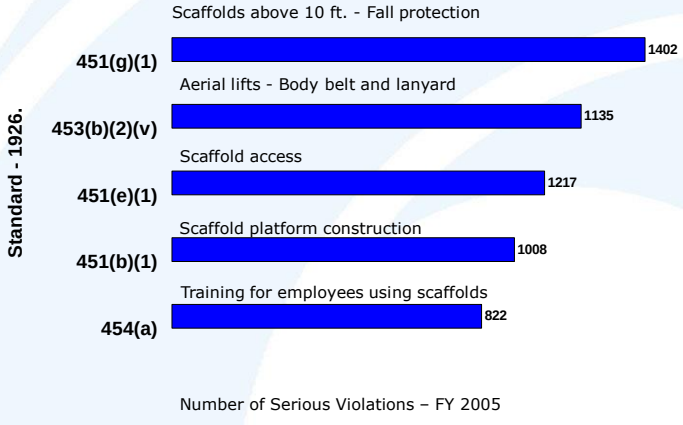
Identifying Fall Hazards

- Examples of factors contributing to fall hazards:
  - Scaffolds
  - Ladders
  - Roofs
  - Other elevated work surfaces

Scaffolds

Photo Source Credit: Associated General Contractors of America, Fall Protection Training in the Construction Industry, 2004.

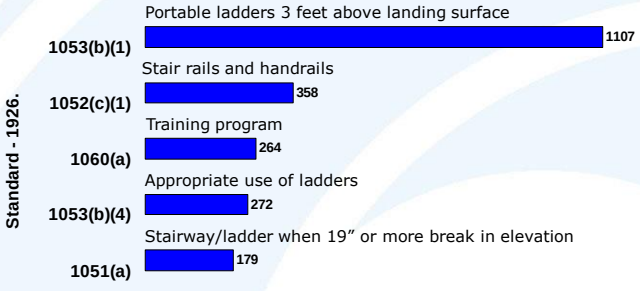
Scaffolds -Subpart L 1926.450-454



Ladders

Photo Source Credit: Associated General Contractors of America, Fall Protection Training in the Construction Industry, 2004.

Ladders - Subpart X 1926.1050-1060

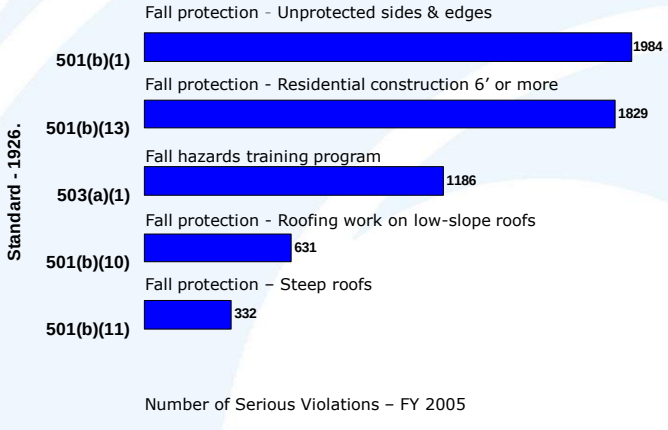


Number of Serious Violations – FY 2005

Roofing

Photo Source Credit: Associated General Contractors of America, Fall Protection Training in the Construction Industry, 2004.

Fall Protection-Subpart M Roofing 1926.500-503



Falls From A Floor (One Level to the Next)

- Falls from one level to the next is a leading cause of fatalities in construction.
- Floor holes are a common hazard.

Can You Identify The Fall Hazards?

Photo Source Credit: Associated General Contractors of America, Fall Protection Training in the Construction Industry, 2004.

Can You Identify The Fall Hazard? (Continued)

Analyze Work Area

- Analyzing work area for fall hazards may include:
  - Reviewing blueprints before work begins
  - Anticipating upcoming fall hazards as work progresses
  - Reviewing for current hazards on site
  - Pre-planning for fall protection
  - Walk around and look

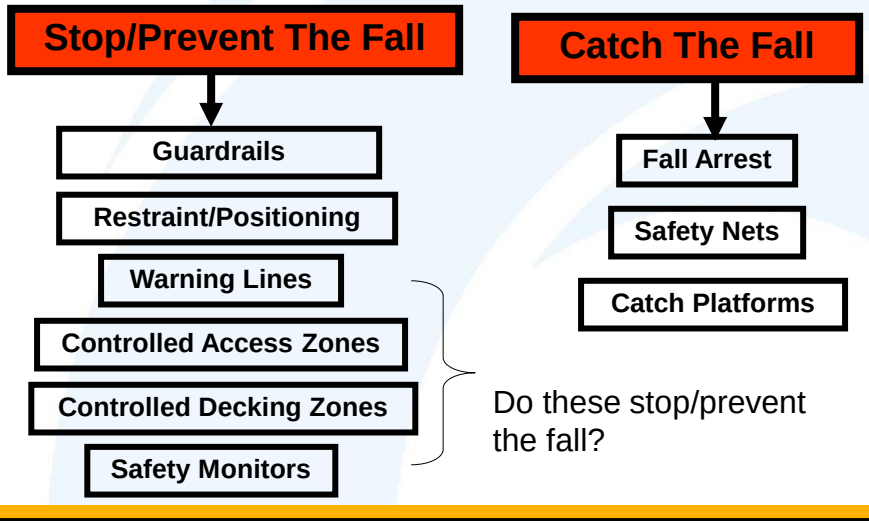
Could These Exposures Been Prevented?

Could These Exposures Been Prevented? (Continued)

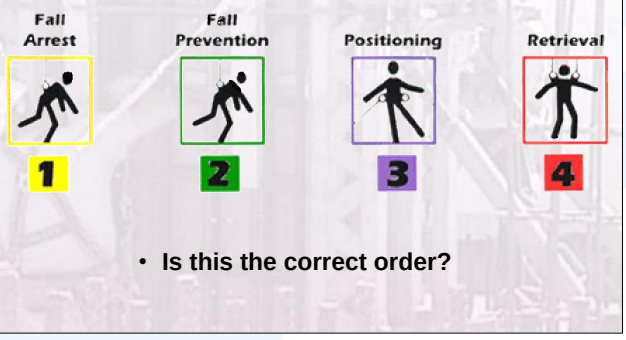
Hierarchy of Fall Hazard Control

- Engineer out and structural integrity
- Administratively prohibit exposure
- Personal protective equipment
  - Prevention of falls – restraint systems
  - Personal fall arrest/positioning device systems

Philosophies of Fall Protection



The Steps of Fall Protection?



- **Is this the correct order?**

Graphic Source Credit: Associated General Contractors of America, Fall Protection Training in the Construction Industry, 2004.

Eight Step Approach to Fall Protection

- Determine walking/working surfaces structurally sound
- Conduct fall assessment
- Eliminate need for fall protection
- Select type of fall protection system
- Develop rescue/retrieval procedures
- Develop equipment inspection, maintenance storage program
- Provide fall protection training
- Monitor fall protection program

Step 1

- Determine if walking/working surfaces are structurally safe

Step 2

- Conduct a fall hazard assessment

Step 3

- Eliminate the need for fall protection, if possible

Photo Source Credit: Oregon OSHA Fall Protection Workshop Materials, 2004.

Step 4

- Select the appropriate types of fall protection systems

Fall Protection Systems

- Guardrail systems
- Personal fall-arrest systems
- Safety-net systems
- Positioning-device systems
- Warning-line systems
- Safety-monitoring systems
- Controlled-access zones

Personal Fall Arrest Systems

Lanyards

Harnesses

Beam Wraps

Caribiners

Rope Grabs

Positioning

Photo Source Credit: Associated General Contractors of America, Fall Protection Training in the Construction Industry, 2004.

Guardrail Systems

Photo Source Credit: Associated General Contractors of America, Fall Protection Training in the Construction Industry, 2004.

Safety-Net Systems

Photo Source Credit: Associated General Contractors of America, Fall Protection Training in the Construction Industry, 2004.

Positioning Device Systems

Photo Source Credit: Associated General Contractors of America, Fall Protection Training in the Construction Industry, 2004.

Warning-line System

Photo Source Credit: Associated General Contractors of America, Fall Protection Training in the Construction Industry, 2004.

Safety Monitoring Systems

- Safety-monitoring system is a set of procedures assigned to a competent person for monitoring or warning workers who may be unaware of fall hazards. [See other additional requirements in 29 CFR 1926.501 (b)(10)]

Controlled Access Zone Systems

- A work area designated and clearly marked in which certain types of work (such as overhand bricklaying) may take place without the use of conventional fall protection systems – guardrail, personal arrest or safety net – to protect the employees working in the zone

Step 5

- Develop rescue/retrieval systems

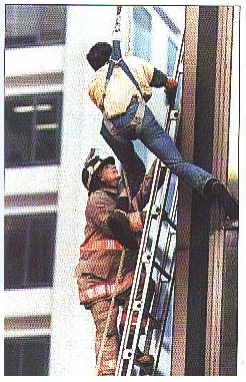


Photo Source Credit: Oregon OSHA Fall Protection Workshop Materials, 2004.

Step 6

- Develop an equipment inspection, maintenance and storage program

Step 7

- Provide fall protection training

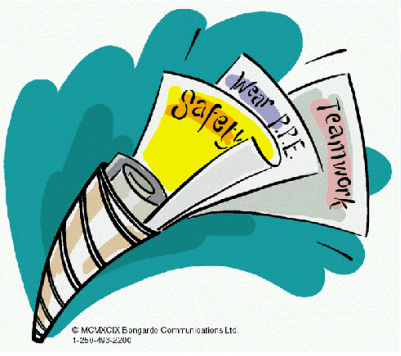
Photo Source Credit: Associated General Contractors of America, Fall Protection Training in the Construction Industry, 2004.

Step 8

- Monitor the fall protection program
- Investigate incidents to determine if program needs to be revised

Promote Your Fall Protection Program

- Managers, supervisors and other staff need to actively support the use of fall protection systems and equipment and encourage employee involvement and support of program



OSHA Resources

Course Summary

- During this session, you have been introduced to:
  - Factors that contribute to fall hazards
  - Analysis of work areas for fall hazards
  - The eight-step approach to fall protection
  - OSHA resources addressing fall protection

Thanks for Your Participation

Questions!!!!!!!!