# OSHA's Requirements for Residential Construction Fall Protection

29 CFR 1926 Subpart M & OSHA Instruction STD 3.1A

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133 Environmental Health Building Fort Collins, CO 80523 (970) 491-6151 Fax: (970) 491-7778 www.bernardino.colostate.edu/public email: ohss@lamar.colostate.edu Residential construction falls caused 40 deaths in 2000 and 45 in 2001. These falls also caused 4600 injuries involving days away from work in 2000 (U.S. BLS statistics).



OSHA recognizes that accidents involving falls are generally complex events frequently involving a variety of factors. Consequently, the standard for fall protection deals with both the human and equipment-related issues in protecting workers from fall hazards. For example employers and employees need to do the following:

Where protection is required, select fall protection systems appropriate for given situations.

- Use proper construction and installation of safety systems.
- Supervise employees.
- Use safe work procedures.
- Train workers in the proper selection, use, and maintenance of fall protection systems.

This OSHA rule clarifies what an employer must do to provide fall protection for employees, such as identifying and evaluating fall hazards and providing specific training. Requirements to provide fall protection for workers on scaffolds and ladders and for workers engaged in steel erection of buildings are covered in other subparts of OSHA regulations.

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### What is Residential Construction?

This is construction where the work environment, materials, methods, and procedures are essentially the same as those used in building a typical single-family home or townhouse. It is characterized by:

- <u>Materials</u>: Wood framing (not steel or concrete); wooden floor joists and roof structures
- Methods: Traditional wood frame construction techniques.

The construction of a discrete portion of a large commercial building, such as a wood frame, shingled entranceway to a mall, may also fit into the definition of residential construction.



### **Residential Construction**

Each employer engaged in residential construction activities **six feet** (1.8 m) or more above lower levels shall be protected by

- quardrail systems,
- safety net systems, or
- personal fall arrest systems

unless another provision in paragraph (b) of this section provides for an alternative fall protection measure. Exception: When the employer can demonstrate that it is infeasible or creates a greater hazard to use these systems, the employer shall develop and implement a fall protection plan that meets the requirements of paragraph (k) of 1926.502. However, OSHA presumes that it is feasible and will not create a greater hazard to implement at least one of the above-listed fall protection systems.

Accordingly, the employer has the burden of

Accordingly, the employer has the burden of establishing that it is appropriate to implement a fall protection plan that complies with

1926.502(k) for a particular workplace situation, in lieu of implementing any of those systems.

Certain tasks in residential-type construction can be performed without the use of conventional fall protection provided that the employer follows all guidelines in Appendix E of Subpart M (Fall Protection Plans). These tasks are identified in "OSHA Instruction STD 3.1A: Interim Fall Protection Compliance Guidelines for Residential Construction". These guidelines relieve the residential homebuilder from the obligation to show "infeasibility or greater hazard" when electing to use alternative fall protection plans in lieu of conventional fall protection. If the guidelines in Appendix E are followed, the employer in not required to have a written fall protection plan as specified in 29 CFR 1926.502(k).

# "Certification of Training"

The employer shall verify compliance with the training requirements by preparing a written certification record. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the employer. If the employer relies on training conducted by another employer, or completed prior to the effective date of this section, the certification record should indicate the date the employer determined the prior training was adequate rather than the date of actual training.

The most recent training certification shall be maintained.

# Retraining

When the employer has reason to believe that an affected employee who has already been trained does not have the understanding and skill as required, the employer shall retrain that employee. Examples of circumstances where retraining is required include:

- Changes in workplace,
- Changes in the types of fall protection systems or equipment to be used,
- An affected employee demonstrates inadequate knowledge or improper use of fall protection systems or equipment.

### Rescue

When using personal fall arrest systems, the employer must provide for prompt rescue of employees in the event of a fall. Alternatively, the employer must ensure that employees are able to rescue themselves.

### **Alternative Fall Protection Plans**

STD 3.1A Plain Language Revision Interim Fall Protection Compliance Guidelines for Residential Construction 1926

Each of these groups has their own alternative plan:

- Group 1: Installation of floor joists, floor sheathing, and roof sheathing; erecting exterior walls; setting and bracing roof trusses and rafters.
- Group 2: Working on concrete and block foundation walls and related formwork.
- Group 3: Attic and roof activities including installing drywall, insulation, HVAC systems, electrical systems (alarm systems, telephone lines, cable TV), plumbing, and carpentry.
- Group 4: Roofing work.

For these groups of activities the employer does not have to have a written plan or prove that conventional fall protection is infeasible.

## Group 1

The alternative plan for Group 1 only applies to structures that are up to 3 ½ stories high (i.e. 48 feet of fall potential). Refer to Appendix E of Subpart M for additional information.

This type of activity requires creation of "Controlled Access Zones" (CAZ) where a "Competent Person" continually monitors work conducted by "Authorized Entrants". There are additional requirements for installing roof trusses and erecting rafters, roof sheathing operations, installing floor joists and floor sheathing, and erecting exterior walls.

### **Group 2**

- Only trained workers may work on the top of the foundation wall/form work, and only as needed to complete the wall.
- Formwork must be adequately supported.

- Stop work if bad weather creates hazardous conditions such as wet or slick surfaces, high wind, or lightening.
- Stage equipment and materials so that they are easily accessible by the workers on top of the foundation/formwork.

### **Group 3**

- Only trained workers may work in attics and on roofs, and only as needed to complete the wall.
- Locate equipment and materials conveniently close to workers.
- Remove impalement hazards from area below workers or guard them.
- Do not allow uninvolved workers to walk beneath work.
- Stop work if bad weather creates hazardous conditions such as wet or slick surfaces, high wind, or lightening.

### **Group 4**

- Only workers trained to work on roofs and roofs with rake edges are allowed on roof.
- Remove slip hazards and wear non-slip shoes.
- Stop work if bad weather creates hazardous conditions such as wet or slick surfaces, high wind, or lightening.
- Cover roof openings and repair damaged portions of the roof or deck A.S.A.P.
- Only regulation ladders and scaffolds may be used.
- Do not allow workers to get on or off roof within six feet of the rake edge.
- Store supplies and materials more than six feet from rake edge and more than three feet from areas of tile installation.
- Remove impalement hazards from area below workers or guard them.

There are additional requirements for "Safety Monitors" or "Slide Guards" depending on roof slope.