
MIOSHA

Construction Safety and Health Division
Michigan Occupational Safety and Health Administration
Department of Energy, Labor and Economic Growth

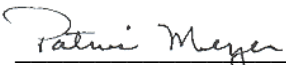
DIVISION INSTRUCTION

DOCUMENT IDENTIFIER:
CSHD-COM-04-1R1

DATE: March 25, 2011

SUBJECT: Residential Fall Protection Compliance Criteria
ENFORCEMENT DATE: June 16, 2011

ABSTRACT

- I. **Purpose:** This instruction establishes MIOSHA enforcement policy on fall protection for residential construction activities.
- II. **Scope:** This instruction applies to the Construction Safety and Health Division.
- III. **References:**
- A. MIOSHA Construction Safety Standard Part 11. /R408.41101 et seq., [Fixed and Portable Ladders](#)
 - B. MIOSHA Construction Safety Standard Part 12. /R408.41201 et seq., [Scaffolds and Scaffold Platforms](#)
 - C. MIOSHA Construction Safety Standard Part 32. /R408.43201 et seq., [Aerial Work Platforms](#)
 - D. MIOSHA Construction Safety Standard Part 45. /R408.44501 et seq., [Fall Protection](#)
 - E. OSHA 29 CFR Part 1926-Subpart M
 - F. OSHA Instruction STD 03-11-002, December 16, 2010
 - G. OSHA Instruction STD 03-00-001, June 18, 1999
- IV. **Distribution:** MIOSHA Staff; OSHA Lansing Area Office; General; S-drive Accessible; MIOSHA Weekly; and Internet Accessible.
- V. **Cancellations:** None.
- VI. **History:** History of previous versions include:
CSHD-COM-04-1, June 25, 2004
- VII. **Contact:** [Patricia Meyer](#), Director
- VIII. **Originator:** 

Patricia Meyer, Director
Construction Safety and Health Division

Executive Summary

This instruction revises Construction Safety and Health Division Instruction COM 04-1, the enforcement policy on fall protection for residential construction activities. Under the revised instruction, employers engaged in residential construction activities must comply with Part 45 - Fall Protection, Rule 1926.501(b)(13) which requires workers engaged in residential construction activities six (6) feet or more above lower levels to be protected by conventional fall protection (e.g., guardrail systems, safety net systems, or personal fall arrest systems) or other fall protection measures allowed elsewhere in 1926.501(b). If an employer can demonstrate that such fall protection is infeasible or presents a greater hazard, they may implement a fall protection plan meeting the requirements of 1926.502(k). The fall protection plan's alternative measures must utilize safe work practices that eliminate or reduce the possibility of a fall. The plan must be in writing and site-specific. A written plan developed for repetitive use for a particular style/model home will be considered site-specific with respect to a particular site only if it fully addresses all issues related to fall protection at that site.

For purposes of determining the applicability of section 1926.501(b)(13), the term "residential construction" is interpreted as covering construction work that satisfies the following two elements: (1) the end-use of the structure being built must be as a home, i.e., a dwelling; and (2) the structure being built must be constructed using traditional wood frame construction materials and methods. The limited use of structural steel in a predominantly wood-framed home, such as a steel I-beam to help support wood framing, does not disqualify a structure from being considered residential construction.

Significant Changes

Added an Executive Summary.

Added [Appendix A](#) – Residential Fall Protection Methods.

Updated Section X. Background.

Added rationale for revising CSHD-COM-04-1, dated June 24, 2004 in Section XI.

Amended the definition of residential construction to new language located in Section XII. Residential Construction.

Deleted Alternative Fall Protection Plans.

Updated Section XIII. Citation Policy.

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- V. History. History of previous versions include: CSHD-COM-04-1, June 25, 2004
- VI. Cancellations. None.
- VII. Contact. [Patricia Meyer](#), Director.
- VIII. Documentation Affected. Construction Safety and Health Division Instruction COM 04-1, Residential Fall Protection Compliance Criteria
- IX. Actions Required. The Construction Safety and Health Division will follow and implement the policies and procedures contained in this Instruction.
- X. Background. The fall protection requirements for residential construction are located in Part 45 - Fall Protection, Rule 1926.501(b)(13) which requires fall protection (usually conventional fall protection, e.g., guardrail systems, safety net systems, or personal fall arrest systems) for work 6 feet or more above lower levels, except where employers can

demonstrate that such fall protection systems are infeasible or would create a greater hazard. Although the standard does not mention personal fall restraint systems, MIOSHA does accept a properly utilized fall restraint system in lieu of a personal fall arrest system when the restraint system is rigged in such a way that the worker is not exposed to the fall hazard.

Under 1926.501(b)(13), the employer is not required to use conventional fall protection if they can demonstrate that doing so is infeasible or would pose a greater hazard. Instead, in that situation, the employer must develop and implement a written site-specific fall protection plan meeting the requirements of 1926.502(k).

Flexible language was included in 1926.501(b)(13) because of concerns expressed by some commenters during rulemaking about the feasibility and safety of using conventional fall protection for residential construction. As a result, the Construction Safety and Health Division issued COM 04-1 Residential Fall Protection Compliance Criteria on June 24, 2004, which permitted employers engaged in certain residential construction activities to use alternative fall protection measures instead of conventional fall protection. These alternative measures could be used without showing infeasibility or greater hazard and without a written site-specific fall protection plan. COM 04-1 was an interim policy and was never intended to remain as the final policy on fall protection for residential construction activities.

COM 04-1 defined “residential construction” as “structures where the working environment and the construction materials, methods, and procedures employed were essentially the same as those used for typical house (single-family dwelling) and townhouse construction. COM 04-1 stated that “discrete parts of a large commercial structure . . . could come within the scope of the directive (for example, a shingled entranceway to a mall), but . . . that did not mean that the entire structure thereby came within the terms of the directive.” This definition of “residential construction” is not clear and has created confusion for the residential industry and inconsistency in enforcement.

In summary, following the original intent of 1926.501(b)(13) would eliminate confusion in the residential construction industry as to what fall protection methods and systems must be used to be in compliance with MIOSHA fall protection requirements.

XI. Rationale for Revising CSHD-COM-04-1, dated June 24, 2004.

There continues to be high numbers of fall-related fatalities in residential construction. With OSHA’s decision to rescind STD 03-00-001, Plain Language Revision of OSHA Instruction STD 3.1, Interim Fall Protection Compliance for Residential Construction, MIOSHA is required to be “as effective as OSHA.” Many different fall protection options are available to employers that can be used for almost all residential construction operations. This provides separate and independent grounds for MIOSHA’s decision to revise COM 04-1.

There may be isolated situations in which it is infeasible or creates a greater hazard to use conventional fall protection in residential construction and 1926.501(b)(13) provides sufficient flexibility to accommodate employers in these situations. Any employer engaged in residential construction who can demonstrate that the use of conventional fall protection is infeasible or creates a greater hazard may use a fall protection plan and alternative fall protection measures in accordance with [Part 45 Fall Protection](#) 1926.502(k). Employers also have the option of having workers work from scaffolds (in compliance with [Part 12](#)), ladders (in compliance with [Part 11](#)) or aerial lifts (in compliance with [Part 32](#)) instead of complying with 1926.501(b)(13). Additional methods of fall protection can be found in [Appendix A](#).

Revising COM 04-1 and enforcing the original intent of 1926.501(b)(13) for fall protection for residential construction will provide appropriate protection for workers and sufficient compliance flexibility for employers. For these reasons, the Agency is hereby revising COM 04-1.

XII. Residential Construction.

For purposes of determining the applicability of section 1926.501(b)(13), the term "residential construction" is interpreted as covering construction work that satisfies the following elements:

- A. The end-use of the structure is required to be a home or dwelling. This comports with the plain meaning of the term "residential" in the text of 1926.501(b)(13) and is consistent with its original intent.
- B. The building in question must be constructed using traditional wood frame construction materials and methods. The term "residential construction" in 1926.501(b)(13) was designed to apply only to the construction of homes using traditional wood frame construction materials and methods. This includes the construction of otherwise covered residences if there is limited use of structural steel in a predominantly wood-framed home, such as a steel I-beam to support wood framing.

Accordingly, it is acceptable within the bounds of "traditional wood frame construction materials and methods" to use cold-formed sheet metal studs in framing.

Many homes and townhouses are built using traditional wood frame construction throughout the structure except for the exterior walls, which are often built with masonry brick or block. The same fall protection methods are likely to be used in the construction of homes built with wood framed and masonry brick or block exterior walls and are consistent with the original intent of 1926.501(b)(13); thus allowing the construction of residences using masonry brick or block for the exterior walls as residential construction.

In accordance with the discussion above, and for purposes of the interpretation of “residential construction” adopted herein, “traditional wood frame construction materials and methods” will be characterized by:

1. Framing materials: Wood (or equivalent cold-formed sheet metal stud) framing, not steel or concrete; wooden floor joists and roof structures.
2. Exterior wall structure: Wood (or equivalent cold-formed sheet metal stud) framing or masonry brick or block.
3. Methods: Traditional wood frame construction techniques.

C. Nursing homes, hotels, and similar facilities.

To meet the definition of “residential construction,” the end use of the building must be as a home or dwelling and the building must be constructed using traditional wood frame construction materials and method. Construction of nursing homes, hotels, and similar facilities typically involves the use of the following materials in the framework of the structure: precast concrete, steel I-beams (beyond the limited use of steel I-beams in conjunction with wood framing, described above), rebar, and/or poured concrete. These materials are not used in traditional wood frame construction. Buildings that are constructed using these materials will not be considered “residential construction” for purposes of 1926.501(b)(13). However, there may be unusual situations in which a project such as a hotel, motel, or nursing home is being constructed using traditional wood frame construction materials and methods and may meet the definition of “residential construction.” These will be evaluated on a case-by-case basis.

XIII. Citation Policy.

- A. If an employer engaged in residential construction activities, i.e. carpentry, plumbing, electrical installation does not provide guardrail systems, safety net arrest systems, personal fall arrest systems, or other fall protection allowed under 1926.501(b), a citation for violating 1926.501(b)(13) will be issued unless the employer can demonstrate the infeasibility of these protective measures or the existence of a greater hazard.
- B. If the employer demonstrates infeasibility or a greater hazard, the safety officer must determine if the employer has implemented a fall protection plan meeting the requirements of 1926.502(k). Part of that determination will be based on whether the employer has instituted alternative measures to reduce or eliminate fall hazards.
- C. The revised COM 04-1R2 requires all fall protection plans under 1926.502(k) to be in writing and site-specific. If the fall protection plan is not written, site-specific, or otherwise fails to meet the requirements of 1926.502(k), the violation

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should be cited as a grouped citation of 1926.501(b)(13) and 1926.502(k). A written plan developed for repetitive use for a particular style/model home will be considered site-specific with respect to a particular site only if it fully addresses all issues related to fall protection at that site.

Appendix A

Residential Fall Protection Methods

Basement Walls:

- Form bracket scaffold
- Welded frame scaffold
- Extension ladders or stepladders

Sill Plate:

- Work from the exterior of the basement walls if the area around basement walls has been backfilled
- Work from ladders or scaffold from the interior of the basement

Floor Joists:

- If area around basement walls has been backfilled, work from the exterior of the basement walls.
- Work from ladders or scaffold from the interior of the basement

Floor Decking:

- Personal fall arrest system (PFAS)
- Floor-mounted anchor with lifeline
- Retractable lifeline
- Engineered fall arrest system
- Controlled Access Zone (with a site-specific plan)
- Do not cut out floor openings until just prior to filling them

Exterior Walls:

- Personal fall arrest system
- Floor-mounted anchor with lifeline
- Retractable lifeline
- Engineered fall arrest system
- Install a guardrail system around the perimeter of the floor areas

Interior Walls:

- Cover or guard window and/or door openings to prevent fall hazards.
- Use exterior framing (stud walls) as a guardrail system (as long as openings are less than 18")

Roof Trusses:

- Use ladders or scaffolds on the interior floor decking to land and secure the trusses.
- Use ladders or scaffolds on the outside of the building to land and secure the trusses.
- Use a lifting hook that can be released remotely or an open hook

Truss Bracing:

- Use of ladders or scaffolds from the floor deck below
- Install temporary truss bracing on the bottom side of the top chord of trusses
- Gang trusses together prior to installation to minimize the amount of temporary bracing needed to be installed after placing trusses

Roof Sheathing:

- Use scaffolds located outside the building to install the first and second rows of roof sheathing
- Use specialized anchor point attached to trusses for personal fall arrest system
- Install guardrails around perimeter of roof
- Install catch platforms around perimeter of roof at eave location

Roofing Material:

- Personal fall arrest system using appropriate roof anchor
- On low sloped roof use safety monitor and/or warning line system
- Install guardrail system
- Follow rules 1926.501(b)(10) and 1926.501(b)(11)