North Carolina Department of Labor
Division of Occupational Safety and Health

Raleigh, North Carolina

Field Information System Operational Procedure Notice 109

Subject: Interim Fall Protection Requirements for Residential Construction

A. **Purpose.**

This OPN establishes North Carolina's policy after consideration of federal OSHA STD 3.1, "Interim Fall Protection Compliance Guidelines for Residential Construction," dated Dec 8, 1995, which introduced requirements less stringent that those previously established by 29 CFR 1926 Subpart M, effective February 6, 1995. This OPN reaffirms that Subpart M requirements still apply in North Carolina and six (6) feet is the threshold height for required fall protection systems. This OPN also expands the definition of "residential construction," and loosens the requirement for site-specific fall protection plans.

Federal OSHA is presently in the rulemaking process to establish fall protection standards for various construction activities, including residential construction, which may reflect the guidelines established in STD 3.1. After the OSHA rulemaking is complete, OSHNC will review the standards and make a decision on whether to adopt federal standards verbatim or adopt state-specific standards. This OPN shall remain in effect until that time. This OPN clarifies parts of 29 CFR 1926 Subpart M which address problems unique to residential type construction work. This instruction describes and clarifies the interim fall protection measures that will be acceptable in North Carolina for compliance with 29 CFR 1926.501(b)(13), "Residential Construction," during the OSHA rulemaking period.

B. **Scope.** This OPN applies to all residential construction activities, and does not affect any general industry activities, such as, but not limited to tree trimming, that take place at residential sites.

C. **References.**

- 29 CFR Part 1926 Subpart M, "Fall Protection," effective February 6, 1995.
- Federal OSHA Instruction STD 3.1, "Interim Fall Protection Guidelines for Residential Construction," December 8, 1995.

D. **Discussion.**

During the past ten years (1986-1995), falls to a lower level have been the second-leading cause of fatal injuries on construction sites in North Carolina, accounting for the deaths of 53 construction company employees. More than half of these (27) fell from a height of less than 25 feet, a threshold height introduced into residential construction by federal OSHA's STD 3.1. Two years earlier, during the development process for "Fall Protection," Subpart M of the federal OSHA Construction Standard, statistical analyses by the federal Bureau of Labor Statistics indicated that the occurrence of serious injuries increased dramatically in falls from heights of greater than 6 feet. This was a major factor in establishing the original federal OSHA fall protection threshold height at 6 feet. Further, on a residential building under 10 feet or

more. After Subpart M was made effective February 6, 1995, and became the standard for fall protection requirements, OSHNC adopted this standard verbatim. Ten months later, federal OSHA excused residential construction from the requirements of Subpart M by introducing 25 feet as the threshold height, thereby exempting most residential construction activity from fall protection requirements. OSHNC recognizes that some of the processes in residential construction have their own unique array of problems, and, at times it is infeasible to comply with the requirements of Subpart M. However, North Carolina's residential construction industry has significantly reduced its injury rate in recent years. Adherence to Subpart M requirements may well have contributed to reducing injuries on residential job sites. It does not seem prudent to relax these requirements as federal OSHA has done with STD 3.1. However, OSHNC is willing to reconsider and, if appropriate, modify those parts of the policy that may not contribute to accident-prevention successes. A specific area of concern examined in the development of this OPN was the complexity and inconsistency of fall protection standards. A cardinal purpose of this OPN is to establish clear and simple fall protection requirements in residential construction without sacrificing consistency or flexibility.

E. **Action.**

OSHNC compliance supervisors and officers shall use the guidelines and procedures set forth in this OPN for the enforcement of Subpart M related to residential construction employment.

F. **Expiration**.

This OPN is effective on September 1, 1996. It will remain in effect until revised or canceled by the Director.

Signed on Original
Charles N. Jeffress
Director

September 1, 1996
Date of Signature

Appendix A

A. **Definition.**

For the purpose of this OPN, the term "residential construction" applies to materials, methods, procedures, fall hazards and fall protection requirements that are essentially the same as those associated with typical house (single-family dwelling) and townhouse construction. Some small institutional and commercial structures fit this definition, as well as parts of a large commercial structure (for example, a shingled entranceway to a mall), but such coverage does not mean that the entire structure is covered by this directive. The terms "residential type construction" and "light construction" will be accepted as synonymous with "residential construction."

B. **Fall Protection Plans**

Subpart M clarifies the duty to provide fall protection for employees engaged in residential construction in 1926.501(b)(13). The rule requires contractors to use a fall protection plan if they cannot use one of the conventional means of fall protection (guardrails, personal fall arrest systems, or safety nets). The rule further provides that employers who demonstrate that it is infeasible or creates a greater hazard to use conventional fall protection must establish the supporting rationale in a fall protection plan that meets the requirements of 1926.502 (k). This standard addresses fall protection plans, and the alternative measures that will be implemented to protect employees.

OSHNC anticipates that alternative fall protection measures may be established by contractors whose employees are engaged in the activities discussed in Appendix E of Subpart M. The burden of proof of infeasibility rests with the employer. It is important to recognize that the term, "infeasible" is not synonymous with "inconvenient." If commonly used, industry accepted, and cost effective fall protection measures appropriate for the activity are feasible for the employer who claims infeasibility, OSHNC will not accept infeasibility as a defense, and will support and uphold the professional judgment of the compliance officer issuing the citation(s). However, OSHNC recognizes that some phases of residential construction have unique problems in a dynamic workplace, and implementation of fall protection systems may be infeasible or may create a greater hazard.

The following construction activities may be exempted from fall-protection system requirements if the CSHO determines:

1. That the fall protection plan reasonably determines that fall protection systems are infeasible for that activity, or create a greater hazard; and,

2. The fall protection plan and observed work practices implement appropriate precautions, procedures or work practices which minimize employee exposure to fall hazards.

Working- atop foundation walls and formwork: Sitting astraddle the wall or formwork could be considered a safe work practice. Walking along the top would not.

Setting roof trusses: If practicable, the worker should keep part of the body inside the structure by the use of ladders, sawhorses, carpenter brackets, -etc. rather than standing on the top plate of the exterior wall.

Working atop unsheathed floor and ceiling joists and rafters: An employee misstep is likely to cause a fall only to the level the employee is standing or walking on, and will probably not result in serious injury. The hazard becomes greater when the worker moves near the perimeter of the structure* or near a larger floor hole. **

*Within 6 feet of the outside edge
** Measures larger than the typical 22-inch spacing between joists and rafters

Erecting exterior walls: The walking/working surface should be smooth, firm and uncluttered to provide sure footing to participating workers. The bottom plate may be toenailed for stability before the wall is raised.

Stick framing of roof systems: Structures tend to be weak and unstable in the early stages, making tie-off infeasible. Scaffolds, ladders or safety nets could protect workers more effectively than the job-made walk boards commonly used.

Installing or disassembling fall-protection systems: Employees are temporarily and necessarily exposed to fall hazards while installing or disassembling fall-protection systems. Compliance officers should not issue citations for this short-term employee exposure, provided appropriate precautions are taken while the work is done.

C. **Fall Protection Plans.** The following North Carolina interpretation loosens the requirement for "site specific" fall protection plans found in 1926.502(k)(1):

"For residential construction, the fall protection plan need not be singularly site specific, but must be applicable to the site and structure, and contain no extraneous material. However, a unique site and/or structure may make a site-specific plan necessary."

Explanation: This relaxation of the requirement for site-specific fall-protection plans will allow a residential builder who builds almost-identical structures on multiple sites to have one, two, or several standardized plans for many structures. However, an all-encompassing "canned" plan which contains material not applicable to the structure at issue is not acceptable. Compliance officers should validate applicability and implementation of the plan on the jobsite.

E. **Roof Pitch.** OSHNC recognizes the Subpart M roof pitch of 4 in 12 as the differentiation line between steep-slope and low-slope roofs, and the differences in fall protection system possibilities. Further differentiations and caveats in steep-slope roofs (i.e., greater than 4 in 12) which affect fall protection requirements are not recognized in North Carolina. Devices such as slide guards and chicken ladders are considered helpful on steep roofs where foot traction is inadequate, but they are not considered adequate substitutes for fall protection systems.