

SPECIAL Report



N A T I O N A L R O O F I N G C O N T R A C T O R S A S S O C I A T I O N

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This Special Report provides an overview of the new OSHA fall protection standard, including a comparison of it to the previous rule. The new rule was issued by the Occupational Safety and Health Administration (OSHA) on August 9, 1994 and its requirements become effective on February 6, 1995.

BACKGROUND

On November 25, 1986, OSHA published a Notice of Proposed Rulemaking (NPRM) to revise and consolidate virtually all of the fall protection provisions of the construction industry standards. At that time and in four subsequent notices, OSHA requested written and oral comments to its proposed changes. During the rulemaking process, OSHA had given the construction industry notice that it was no longer going to allow industry-specific exceptions, like the Warning Line System (WLS), the Safety Monitoring System (SMS) and the 16-foot ground-to-eave height trigger for the rule, to its standards. OSHA reported that these exceptions have caused significant disagreement and compliance problems. Therefore, these provisions of the old rule were facing elimination. On May 28, 1993, the final comment period was closed.

NRCA and 70 members participated in the rulemaking process, submitting written and oral comments, during its various stages. In fact, in May of 1994 NRCA and the International Roofers Union, after its regular meeting to discuss safety-related issues, sent OSHA a joint position paper on fall protection.

The joint position paper stated that the Warning Line System and the Safety Monitoring System should remain as a permitted means of fall protection on low-slope roofs and that they should be required on jobs where the roof has a ground-to-eave height greater than 10 feet. Because of these efforts, OSHA adjusted its hard-line approach.

OVERVIEW

Many of the topics now included in this standard were previously included in other OSHA standards. However, for clarity sake, OSHA decided to consolidate the construction-related fall protection requirements in one place and, therefore, changed the title of Subpart M from "Floor and Wall Openings, and Stairways" to "Fall Protection." In 1990, "Ladders and Stairways" was removed and placed in Subpart X and in this rulemaking, the floor and wall openings portion was simply incorporated into Subpart M.

The new Subpart M, beginning at §1926.500, includes: body belts and harnesses, lifelines,

lanyards, safety nets, covers, guardrails, and the safety monitoring and warning line systems. Changes were made in the fall-related sections of other construction-related standards that now refer to Subpart M. However, if another construction-related standard such as, Subpart L - Scaffolding, has unique fall protection requirements, then those requirements will supersede Subpart M.

The requirements of the new subpart do not apply when making an inspection, investigation, or assessment of a jobsite *prior to* construction work commencing *or after* the project has been completed. However, anytime during construction, all workers regardless of job function must be protected from falls by at least one of the methods described below.

LOW-SLOPE ROOFING

Section §1926.501(b)(10) titled, "Roofing work on low-slope roofs," incorporates all types of low-slope roofing--it is no longer referred to as the "built-up roofing standard." The definition of a low-slope roof has not changed: one that has a slope less than 4 in 12. The regulation states that,

...each employee engaged in roofing activities on low-slope roofs, with unprotected sides and edges 6 feet or more above lower levels, shall be protected from falling by guardrail systems, safety net systems, personal fall arrest systems, or a combination of warning line system and guardrail system, warning line system and safety net system, or warning line system and safety monitoring system. Or, on roofs 50-feet or less in width, the use of a safety monitoring system alone [i.e., without the warning line system] is permitted.

An unprotected side or edge is redefined in the new rule as one where there is no wall or guardrail system at least 39 inches high to protect a worker from falling. Therefore, parapet walls must now be at least 39 inches in order to act as an approved barrier. Previously, the rule stated 36 inches.

The new rule requires fall protection for *any* level that is at least 6 feet above a lower level. Therefore, all roofs including secondary levels that are at least 6 feet are now covered by the rule. The old rule specified ground-to-eave height of at least 16 feet as a trigger for its requirements.

The requirements for guardrail systems are found at §1926.502(b). Although more simply stated, the basic requirements haven't changed. Appendix B to Subpart M provides specific details for constructing guardrails.

The requirements for safety nets are found at §1926.502(c). Safety nets were previously allowed for use as fall protection in construction, but the new standard specifically allows for their use in the roofing workplace. Safety nets are to be installed outside of and as close as possible to the unprotected roof edge or opening, but no more than 30 feet below it.

Personal fall arrest systems can be found at §1926.502(a). These systems include safety harnesses and safety belts attached to lifelines or lanyards (including the self-retracting types) or a deceleration device. A proper fall arrest system will prevent a fall of more than 6 feet from the walking/working surface edge. However, as of January 1, 1998, safety belts will no longer be allowed as a fall arrest system. Although the strength requirements for these systems have changed somewhat, it is important to check with your equipment supplier to ensure the equipment you use and purchase is in compliance.

The requirements for the Warning Line System and the Safety Monitoring System have not changed and can be found at §1926.502(f) and (h) respectively.

STEEP-SLOPE ROOFING

OSHA specifically addresses steep-slope roofs--those having a slope greater than 4 in 12--in this rulemaking at §1926.501(a)(ii) stating,

Each employee on a steep roof with unprotected sides and edges 6 feet (1.8m) or more above lower levels shall be protected from falling by guardrail systems with toeboards, safety net systems, or personal fall arrest systems.

All of these fall protection methods have been discussed above with the exception of toeboards on guardrails. Toeboards are to be added to guardrails to prevent materials, equipment and employees from sliding off the roof. The specific requirements for toeboards are found in section §1926.502(j).

Toeboards must be able to withstand a force of at least 50 pounds (222N) in a downward or outward direction. They are to be installed so that there is no more than a 1/4 inch (0.6cm) clearance above the walking/working surface and are at least 3 1/2 inches in height (previously, 4 inches was required).

OSHA has not included catch platforms, roofing brackets, and chicken ladders in this rulemaking. These items are still found in the Subpart L - Scaffolding regulations. OSHA compliance has relayed to NRCA that catch platforms qualify as scaffolds with guardrails and would satisfy the requirements of the rule. However, the discussion portion of the new rule states that roofing brackets used alone will not satisfy the requirements. If they are used, then guardrails with toeboards or personal fall arrest systems are still required.

OTHER RELATED REQUIREMENTS

In 1926.502, titled "Protection from falling objects", paragraph (7) specifically sets rules to protect workers and the public from falling objects. The new requirements differ slightly from the existing ones. One change is that toeboards are required to be erected along the edge of overhead walking/working surfaces in order to protect employees working below. Previously, the toeboards were required regardless of whether anybody was actually exposed to the hazard.

Section §1926.501 (b)(3) addresses hoisting areas and states that workers are to be protected from falling by the use of either guardrails or personal fall arrest systems. It is noted that if guardrails are used and the worker must remove the top rail in order to reach over the edge to grab the hoisted materials, he must be protected by a personal fall arrest system.

Protection for workers falling into or objects falling through holes is addressed in section §1926.501(b)(4) and includes skylights¹. Covers are required to be placed over any hole (one that has a gap 2 inches (5.1cm) or more in its least dimension) less than 6 (1.8m) feet from a lower level. However, if the hole is more than six feet above a lower level, then personal fall arrest systems or guardrails are given as additional fall protection options.

If covers are used, section §1926.502(i) specifies their use. Covers are now required to be capable of supporting at least twice the weight of the expected load on the cover. Therefore, if the heaviest expected load would come from a worker with a total weight of 300 pounds, the cover must be strong enough to support at least 600 pounds. Also, all covers must be color coded or marked with the word "HOLE" or "COVER" as a warning. Previously, covers had to be able to withstand a load of 200lbs.

New in this rule is the option to develop a fall protection plan when implementing the requirements of this rule is impracticable. These regulations are found at §1926.502(k). However, the option to use this exception is only allowed for leading edge work, precast concrete construction work and residential construction work. All three options deal with the construction of the building itself. Residential construction, as it relates to roofing, only covers the installation of the deck, not any portion of the installation of the roof system. If this option is used, there are very involved requirements for the development of the fall protection plan. A sample fall protection plan is offered in Appendix E.

TRAINING

The training requirements, found at §1926.503, mandate that contractors provide fall protection training to all exposed workers enabling them to recognize and avoid fall hazards. The training must be performed by a competent person.²

¹The standard does not address what is required when a skylight fixture is already installed over a skylight opening. Previously, it has been assumed that the skylight fixture would qualify as a cover if it could withstand a 200-pound load. However, with the new requirements, it is unlikely that skylight fixtures themselves could qualify as a cover and, therefore, leaves open the question as to what type of protection is required. NRCA is seeking clarification on this issue.

²A competent person is "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or

Since training is required by the current regulation, contractors are not necessarily required to retrain. However, contractors are required to verify through certification that workers have not only received but *understand* the requirements of the new rule. This is a new provision. Unfortunately, there are no specified means to determine how to judge if an employee properly understands the requirements. The contractor is left to make the determination.

The written certification record must contain the name of the employee, the date(s) of training, and the signature of the competent person or the employer. If the contractor is relying on training provided by another employer or training previously conducted, the certification record must indicate the date the contractor determined that the employee is properly trained.

Retraining, under the new rule, is required when the contractor has reason to believe an employee no longer understands the necessary fall protection information or there have been changes in the workplace that necessitate retraining.

CONCLUSION

The new fall protection standard becomes effective on February 6, 1995 and requires contractors to reevaluate their training programs and to provide fall protection at virtually all jobsites. It is important that the warning line and safety monitoring systems are still available to contractors for fall protection, although, OSHA considers their use to be the very minimum level of fall protection. The alternative leaves only guardrail, safety net, and personal fall arrest systems available to the roofing industry for fall protection.

It is also important to realize that fall protection is an OSHA priority. Although, the new rule does not give adequate fall protection requirements for all of the unique roofing situations, if members keep NRCA aware of compliance problems or citations that do occur, it is possible to work toward and obtain acceptable solutions to debatable compliance interpretations.

dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them."

