



A Primer on OSHA's New Walking-Working Surfaces Rule

By Joseph Caputo

In November of 2016, the Occupational Safety and Health Administration (OSHA) issued a final rule updating its General Industry Walking-Working Surfaces requirements, located in 29 CFR 1910 Subpart D. The new rule also includes a new section in the General Industry Personal Protective Equipment standards, 29 CFR 1910 Subpart I, which establishes requirements for using personal fall protection systems. These standards, which principally affect maintenance activities, had not been updated since 1971. The update brings the general industry standard much closer to those provided in OSHA's existing 1994 construction fall protection standard, 29 CFR 1926 Subpart M, allowing for much more consistency between the two. For example, the final rule updates the general industry scaffold standards with a requirement that employers comply with OSHA's construction scaffold standards. Some small differences remain; fall protection still is required when employees are exposed to a fall hazard 4 feet or greater from a lower level for general indus-

try as opposed to the 6-foot fall hazard trigger height in the construction standards.

Careful review of the new rule is encouraged. The majority of the rule became effective in January of 2017, with most of the remainder becoming effective at varying dates over the next two years. This article focuses on the building envelope consulting industry and highlights some of the key items to know about in the new walking-working surfaces rule.

The new rule reorganizes and clarifies the 1971 standard, and more importantly, it provides updated requirements for surfaces where slips, trips, and falls are common. These can occur in all general industry workplaces, which can include walking-working surfaces such as floors, stairs, roofs, ladders, ramps, scaffolds, and elevated walkways. Employers are responsible for ensuring their walking-working surfaces are regularly inspected and maintained. Hazardous conditions must be corrected or repaired before employees can access the walking-working surface. This means that building owners may need to update their

facilities or install new fall protection systems to ensure these hazards are properly addressed. Contractors employed to perform work at a building should coordinate with the building owner to see if the existing fall protection systems can be used in conjunction with any contracted work.

FALL PROTECTION SYSTEMS

To better understand what the walking-working surfaces rule addresses, it is important to understand the different types of fall protection systems. Fall protection systems can be organized into two categories: passive and active systems. Passive systems are stationary, non-dynamic, and do not require personal protective equipment or active participation from the user. Examples include properly installed guardrails or safety nets. Active systems are dynamic and require the use of special equipment and participation from the user. These are commonly referred to as personal fall protection systems.

There are two types of active systems: fall restraint and fall arrest. In both systems, workers wear harnesses attached to anchors via lanyards. Fall restraint systems use fixed-length lanyards to prevent the user from physically being able to move beyond an edge and possibly fall. If restraint cannot effectively be achieved, fall arrest systems must be employed. Fall arrest systems use shock-absorbing lanyards to safely arrest a user's descent in the event of a fall (*Figure 1A*). Fall arrest anchor points must be capable of withstanding 5000 pounds in any direction for each employee attached. They may also be designed, installed, and used under the supervision of a qualified person as part of a complete personal fall protection system that maintains a safety factor of at least two. Because fall restraint systems (*Figure 1B*) are not designed to mitigate an actual fall, their lanyards are not required to have shock absorbers.

Greater flexibility in determining appropriate fall protection is provided for in the new rule. Any employer—be it a building

Any employer—be it a building owner, consultant, or contractor—with staff performing work at a building must follow this new rule.

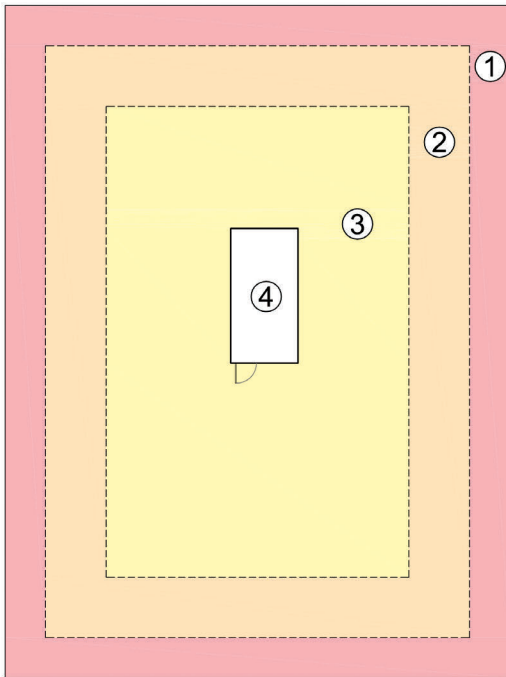
Figures 1A and 1B – Two types of lanyards are pictured. 1A (below) incorporates a shock absorber for fall arrest, and 1B (right) is for fall restraint.



owner, consultant, or contractor—with staff performing work at a building must follow this new rule. To start the selection process, employers have the responsibility to first identify and evaluate hazards in the workplace. This requirement has not changed. What has changed is that once fall hazards are identified, employers can now select from conventional and more unconventional fall protection means. Each site will have its own special conditions that the employer must analyze to determine the best fall protection system. Previously, OSHA only described use of guardrails as the means of fall protection in general industry. Although still



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- ZONE IDENTIFICATION**
1. WITHIN 6 FEET FROM EDGE
 2. BETWEEN 6 AND 15 FEET FROM EDGE
 3. OVER 15 FEET FROM EDGE
 4. STAIR BULKHEAD
- TYPICAL WORK REQUIREMENTS**
1. PASSIVE OR ACTIVE FALL PROTECTION
 2. PASSIVE OR ACTIVE FALL PROTECTION
 3. PASSIVE OR ACTIVE FALL PROTECTION OR DESIGNATED AREA WITH WARNING LINE
- TEMPORARY AND INFREQUENT WORK REQUIREMENTS**
1. PASSIVE OR ACTIVE FALL PROTECTION
 2. PASSIVE OR ACTIVE FALL PROTECTION OR DESIGNATED AREA WITH WARNING LINE
 3. PASSIVE OR ACTIVE FALL PROTECTION OR EMPLOYER RULE: MAY NOT GO BEYOND ZONE 3

Figure 2 – Diagram of fall protection requirements at different roof zones.

LOW-SLOPED ROOFS

Of particular note are OSHA’s new fall protection requirements for work performed on low-sloped roofs (a roof with a slope less than 4 in 12). OSHA’s new regulations describe specific fall approach distances and their respective fall protection options (Figure 2).

When work is to be performed over 15 feet away from an unprotected edge, fall protection in the form of a guardrail system, safety net system, travel restraint system, personal fall arrest system, or a designated area may be provided. Designated areas are very similar to warning line systems described in OSHA’s construction fall protection regulations. When work in this zone is both temporary and infrequent, the employer also has the option to implement and enforce a rule requiring that employees stay at least 15 feet from a roof edge. Provided this rule is followed, no additional fall protection measures are required. Infrequent work is described by OSHA as tasks or jobs that are “performed only on occasion, when needed (e.g. equipment breakdown), on an occasional basis, or at sporadic or irregular intervals.” OSHA describes temporary work as that for which the duration of “the task the worker performs is brief or short.” This includes work that would take less time to perform than setup of a conventional fall protection system.

Fall protection options change for work between 6 and 15 feet from a roof edge. Options include providing a guardrail

commonly used, guardrails are not always the most feasible fall protection selection.

After choosing the most appropriate fall protection method or system, the employer

also must ensure that the fall protection equipment and systems are periodically inspected and maintained. Requirements and systems described by the new rule include guardrails, personal fall protection systems, portable ladders, fixed ladders, ladder safety systems, safety nets, rope descent systems, and more. OSHA’s new rule also requires that employers train and retrain employees as required on the identification of hazards and the use of fall protection equipment.



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Figure 3 – Example of a ladder safety system.

system, safety net system, travel restraint system, or personal fall arrest system. For work that is both temporary and infrequent, a designated area identified by warning lines may again be used.

Any work within 6 feet of the roof edge requires fall protection in the form of a guardrail system, safety net system, travel restraint system, or personal fall arrest system.

It should be noted that residential roofs are addressed briefly in the new rule. The same standards apply to residential roofs as commercial roofs, but often, residential roofs are steep-sloped (slope of 4 in 12 or greater). Commercial roofs are typically low-sloped. OSHA's rule provides a few additional options for residential roofs, but experience has shown that with a little extra thought, conventional fall protection systems often still work well on steep slopes.

LADDERS

Although ladders are perhaps one of the most common access tools found on a job site, they also remain one of the leading causes of injury. OSHA's new rule covers both portable ladders and fixed ladders. Most notably, changes were made to the requirements for fixed ladders. Cages and wells previously allowed by the old rules are now being phased out. The new rule requires the use of a ladder safety system or personal fall arrest system for fixed ladders greater than 24 feet. Existing ladders with cages and wells are currently grandfathered in through the new rule for a period of time, but new or replacement fixed ladders greater than 24 feet must be equipped with a fall arrest or ladder safety system. One example of a ladder fall arrest system would be a self-retracting lifeline secured to appropriate anchorage at the top of the ladder. A ladder safety system may have a continuous steel cable running alongside the ladder (Figure 3). A proprietary rope grab runs along the steel cable and grips it in the event of a fall. Obviously, the user of the ladder must wear an appropriate harness in both instances to clip into each fall protection system. By November 18, 2036, all fixed ladders greater than 24 feet must be equipped with a personal fall arrest or a ladder safety system.

ROPE DESCENT SYSTEMS

In some instances, it may be necessary to access work using a rope descent system (RDS). OSHA defines RDS as "a suspension

system that allows an employee to descend in a controlled manner and, as needed, stop at any point during the descent." Equipment commonly used with RDSs includes boatswain chairs (also known as bosun's chairs).

Not specifically defined in OSHA's new rule, industrial rope access (IRA) is a method utilizing ropes and specialized equipment to provide access and position workers in locations where other conventional means of access would not be practical (Figure 4). Although the two rope methods may

seem similar, IRA requires more rigorous training and is multi-directional, allowing rope access technicians to move upward, downward, and, in some cases, side to side. A worker using an RDS can only descend.

Appearing to acknowledge this, OSHA's new rule specifically addresses RDSs only. The rule's main effects on RDSs include limiting use of RDSs to heights of 300 feet or less in most situations and requiring that RDS users attach to certified anchors. Building owners must provide permanent, certified anchorages used with RDSs (when



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Figure 4 – Industrial rope access.

RDSs are used at their facility) and ensure they are inspected, tested, and maintained to support the specified load (as noted earlier). Ultimately, this means that contractors are less responsible for determining appropriate anchorages when using RDSs. They are responsible for obtaining the cer-

completed.” However, if a fall protection system has been installed and is available for use at any time, workers must use it. Always remember that once any work is performed, an appropriate fall protection system must be used.

tification information from building owners before using anchorages, and they still must utilize their best judgment before tying off to an anchor.


INSPECTING, INVESTIGATING, OR ASSESSING WORKPLACES

What if no work is going on yet? What if you are simply performing an investigation, inspection, or assessment? In this case, OSHA’s new rule provides additional guidance. The new rule appears to allow an exemption negating fall protection requirements in certain conditions. These conditions are specifically outlined as “inspecting, investigating, or assessing workplace conditions or work to be performed prior to the start of work or after all work has been

SUMMARY

Similar to other OSHA requirements, this new rule likely will be revisited and reconsidered as it is applied to new and varying conditions. At the moment, each employer, including mine, has its own interpretation of what the many facets of this rule mean. Undoubtedly, OSHA will issue future Letters of Interpretation to clarify the intent and purpose of the rule.

Whatever the new rule may say, it is important that employers and employees always maintain the highest level of awareness when working in any workplace. OSHA’s rule attempts to limit the chance for slips, trips, and falls significantly, but no standard can completely prevent the possibility of workplace accidents. Conditions can change rapidly on a job site. Appropriate training for identification of hazards and the use of equipment are essential for dealing with both routine day-to-day tasks and unexpected surprises.

More information and the rule itself can be found on OSHA’s website (<https://www.osha.gov/walking-working-surfaces/>). 



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