Fall protection is a roofing industry topic that attracts, and naturally deserves, a great deal of attention. According to the Occupational Safety and Health Administration (OSHA), falls are the leading cause of death in construction and a major cause of death in other industries.

Earlier this year, a final rule went into effect from OSHA revising regulations applicable to general industry workplaces with the goal of better protecting workers on what OSHA defines as “walking-working surfaces.”

The revised general industry provisions in Subpart D feature a much less protective approach to worker safety for certain activities on low-slope roof systems that allow some work to take place without fall protection. Another revision allows for a fall-protection system that has as its origin an established system for roofing work found in the construction regulations.

The new regulatory provisions have some weaknesses as a result of unclear definitions regarding what constitutes “repair” work as the term is used in construction regulations and “maintenance activities,” which OSHA uses to outline a segment of the scope of the general industry provisions. The result is employers may not have a clear understanding of the applicability of either the general industry or construction rules regarding fall protection.

Roofing contractors should be aware of the details contained in these new provisions as some work activity regularly conducted by roofing professionals may be affected by the revised rule.

Background

The general industry regulations relating to fall protection on walking-working surfaces were adopted in 1971 and have not been revised since adoption. These surfaces are defined as “any horizontal or vertical surface on or through which an employee walks, works, or gains access to a work area or workplace location.”

The original rule generally limited fall-protection system options to the use of guardrails at fall hazards of 4 feet or greater. Under the new rule, the fall-protection system options in general industry more closely mirror those that have applied to the construction industry since 1994 except for the retention of the 4-foot trigger-height threshold.

The conventional fall-protection systems specified under the construction industry provisions now are available as general industry options—guardrails, safety nets and personal fall-arrest (PFA) systems—with added provisions for using travel restraint, positioning systems and a fall-protection plan option.

Most significantly, in certain instances on low-slope roof systems (4:12 or less), a general industry employer may protect workers by establishing a designated area—a distinct portion of a walking-working surface delineated by a warning line in which employees may perform work without additional fall protection. This new option clearly is based on the warning-line system available for roofing work on low-slope roof systems that has been part of the construction rules for many years.

A key benefit promoted by OSHA under the new rule is the flexibility offered to employers to select the fall-protection system the employer decides is the most appropriate for the fall hazard involved. Although this idea comes from the construction regulations, OSHA has moved to reduce the fall-protection system options available in construction during the past few years by, for example, rescinding the use of slide guards in steep-slope roofing work—so this new rulemaking is an anomaly with respect to past agency actions.

The scope of the new rule is critical for a number of entities. Under the Occupational Safety and Health Act of 1970, OSHA was given authority to develop and enforce regulations covering various industries, such as construction, maritime and general industry. The general industry rules apply broadly to employers in manufacturing, warehousing, retail and industrial workplaces—the applicability of the rules are determined not by an agency general industry definition but more by the work that remains after defining the scope of the other named industries.

Application of the maritime rules for ship building and repair is clearly spelled out, but “construction work” is less clearly defined as “work for construction, alteration, and/or repair, including painting and decorating.” Historically, OSHA has considered maintenance activities to be covered under the general industry rules.

A 2003 OSHA letter of interpretation relied on a definition in the Davis-Bacon Act to distinguish repair work from maintenance work found in the construction regulations.

The new regulatory provisions have some weaknesses as a result of unclear definitions regarding what constitutes “repair” work.

OSHA revises general industry regulations relating to fall protection on walking-working surfaces

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activities by citing that law’s definition of construction work. In
essence, 29 CFR 5.2(i) defines construction work as “generally in-
cluded construction activity as distinguished from manufacturing,
finishing of materials, or servicing and maintenance work ...”

In the interpretation, OSHA explains maintenance means
“keeping equipment working in its existing state, i.e., preventing
its failure or decline.” This suggests regularly scheduled work to
maintain a component’s original condition, but a project’s scale and
complexity may tend to indicate a construction characterization if
the scale is large or the complexity great.

Complexity is assessed based on the steps involved when
accomplishing a task plus the tools and equipment needed to
perform the work. Whether the workers performing the tasks are
employed by an outside contractor or in-house employees of the
building or property owner is not a factor with respect to which
rules apply, according to OSHA. The significance of these dis-
tinctions for a roofing contractor relates to the specific work the
contractor may be performing when determining whether general
industry or construction fall-protection options are appropriate.
Activities such as cleaning a roof or applying a coating may fall
under general industry rules as maintenance provided no repair
aspects are included.

System specifics
An employer must provide fall protection for any employee on a
walking-working surface with an unprotected side or edge 4 feet
or more above a lower level using one or more of the following:
guardrails, safety nets, PFA systems, travel-restraint systems or positioning systems.

Just as in construction, on residential roofs,
if an employer can show those systems are in-
feasible or create a greater hazard, the employer
must develop and implement a fall-protection plan complying with the elements of 29 CFR
§1926.502(k).

Specific guardrail system requirements gen-
erally match those in the construction rules: 39-
to 45-inch heights with top rails capable of withstanding a force of
200 pounds in a downward or outward direction; midrails installed
at the midpoint between the top rail and the walking or working
surface; and minimum 1/4-inch-thick rails allowing for the use of
rope or wire rope (however, no flagging is required as under the
construction rules).

The requirements for safety nets are the same as in the con-
struction rules. PFA system components must be able to sustain a
minimum tensile load of 5,000 pounds and anchorages support-
ing the system must be capable of supporting 5,000 pounds per
employee attached. The same 5,000-pound requirement applies to
travel-restraint lines though OSHA does not offer specifics regard-
ing the requirements for the other restraint system components.

Self-retracting lifelines must limit free-falls to 2 feet or less and
be capable of sustaining a minimum tensile load of 3,000 pounds.
Also, the agency does not provide direction regarding rescue from
an arrested fall—it only duplicates the requirement from the
construction rules that an employer must provide for the prompt
rescue of a worker in the event of a fall.

Specifically regarding low-slope roof systems, one of the
fall-protection systems previously described must be used if workers
are less than 6 feet from a roof’s edge. When work is at least 6 feet
but less than 15 feet from a roof’s edge, one of those systems must
be used or an employer may implement a designated area if the
work is “infrequent and temporary.”

A designated area is part of the walking-working surface de-
lined by a warning line in which employees may perform work
without additional fall protection. The designated area’s warning
line must be visible 25 feet away and from anywhere within the
designated area. Height, strength and support requirements from
the warning-line rules in construction also apply to general indus-
try use as do the distances from the edge for warning-line place-
ment when mechanical equipment is used 6 feet from the edge
parallel to equipment travel and 10 feet from the edge perpendicu-
lar to equipment travel.

Importantly, when work is performed 15 feet or more from a
roof’s edge, workers may be protected with guardrails, safety nets,
PFA systems, travel-restraint systems or a designated area. But if the work is infrequent
and temporary, no fall protection is required provided the employer
implements and enforces a work rule prohibiting employees from
going within 15 feet of the roof edge unless they use one of the
fall-protection systems. Compliance with the rule is further com-
plicated by the agency’s lack of a definition for
“infrequent and temporary” work, which would
more clearly limit the scope of the rule on low-
slope roof systems.

The new general industry rule also contains
a provision similar to one found in the con-
struction rules for workers inspecting, investi-
gating or assessing the work to be performed,
the workplace conditions before commencing
work or after all work has been completed. Such
workers are not required to have fall protection
unless fall-protection systems or equipment have
been installed and are available for worker use. This is an impor-
ant provision most likely to be applied to building engineers and
maintenance personnel who previously had never been covered by
such an exception.

Don’t let safety be a casualty
Although many of the new general industry fall-protection
provisions appear similar to the construction regulations, roof-
converting contractors must continue to rely on OSHA rules specific to
construction with respect to fall hazards and control methods.
Specifically, absent further direction from the agency regarding
what precisely might constitute maintenance activity versus repair,
roofing contractors should be particularly wary when attempting
to use the designated area options under the new rule for work that
could be characterized as construction or repair. This is true even if
the activity clearly meets the accompanying regulatory requirement of
temporary and infrequent.
In fact, NRCA’s position for all repair and construction work to be performed on low-slope roof systems is roofing contractors should rely on conventional fall protection, warning line and/or safety-monitoring systems detailed in the construction regulations to ensure the greatest safety for their workers.

For maintenance activities, as OSHA currently explains the term, NRCA recommends warning lines be erected at least 15 feet from a roof’s edge and workers performing tasks closer to the roof edge (outside the warning lines) should be protected by one of the conventional fall-protection systems.

NRCA’s position provides a higher level of worker safety on roofs than the new OSHA general industry rule. Safety often can be a casualty when new regulations are issued that cause confusion regarding the work operations to which they apply and the precise nature of the worker protection to be implemented. Established fall-protection systems and procedures provide trained roofing professionals with familiarity, ease of setup and use along with dependability in delivering a safe work area when properly implemented.

For more information about the final rule, visit www.osha.gov or contact Harry Dietz, an NRCA director of enterprise risk management, at (847) 493-7502 or hdietz@nrca.net.

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