



SEPARATING PEOPLE FROM HAZARDS

How to be compliant with the new OSHA regulations for Fall Protection



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The end of 2017 marked a significant update to the OSHA Fall Protection Regulations. With this new update, OSHA produced a 513 page document as a final rule on Working-Walking Surfaces and Personal Protective Equipment. Knowing that reading this regulation would be a feat of its own, we did the work for you.

Here are 4 core changes that you will want to know.



1. New options from OSHA

The OSHA fall protection code is divided into two main groups: Construction industry and General industry. Although these categories have been fairly self-explanatory, the differences in the code between them has not been. The construction industry has a robust code, itemizes distances, offers different options for fall protection, and even provides different trades with specific guidelines.

The general industry code left much to be desired. The code was lacking the specificity to provide meaningful guidance, and you were stuck with guardrail as your only option. There was too much “gray area” that became a cesspool of everybody’s opinion.

Corporate regulations became king, we had to reference “industry best practices”, and be ok with “de minimis” conditions as we simply tried to keep people safe. Now the general industry code has had a facelift. OSHA has now given us options. We continue to hold fast to the idea that guardrail is often the best form of protection (see hierarchy of fall protection on page 4).

It does not require training, inspections, certifications, managing, etc. However, there are occasions when another solution is desirable. With the new code, OSHA recognizes that other forms of fall protection are useful and, when used properly, provide meaningful protection to the “general industry” worker. The new types of solutions available are personal fall protection systems, safety nets, and designated areas.

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| Solution | Explanation | Risk | Cost |
|-------------------------|--|---|---|
| Guardrail | 42" high guardrail, preventing any workers from the hazard. Considered an "engineering control".* | Low. Railing collectively protects workers from a fall without requiring the worker to do anything. | Up-front costs are typically higher, with very little long-term costs. Virtually no ongoing management. |
| Fall Arrest | Anchor point or lifeline, lanyard, and body harness. Arrests a worker after a fall has occurred. Considered "PPE".* | High. Specialized training and rescue plans are required. Fall arrest systems require a worker to wear and use the system properly every time. | Up-front costs are lower, with ongoing costs that last the lifetime of the system (certifications, inspections, slowed work efficiency) . High management costs include training, record keeping, and verification of proper use. |
| Travel Restraint | Anchor point or lifeline, lanyard, and body harness. Prevents a worker from reaching a fall hazard. Considered "PPE".* | Medium. Specialized training is required. Travel restraint systems require a worker to wear and use the system properly every time. | Up-front, long-term, and management costs are typically the same as a fall arrest system. |
| Positioning | Anchor point or lifeline, lanyard, and body harness. Holds the weight of a worker while he is working. Considered "PPE".* | High. Specialized training and rescue plans are required. Positioning systems require a worker to wear and use the system properly every time. Fall arrest systems are typically required to be used when a worker is using a positioning system. | Up-front costs are low, but all of the additional costs of a fall arrest system are typically required as well. This system requires the highest level of training. |
| Safety Nets | A net that catches a worker in the event of a fall. Considered an "engineering control".* | Low. Safety nets collectively protect workers from a fall without requiring the worker to do anything. However, safety nets are usually only a temporary solution. The risk of installing them each time they are needed may outweigh the benefit. | Up-front costs are low, but the system's use is temporary. The frequency of its use may drive the cost to be infeasible compared to other solutions. |
| Designated Areas | A safe working zone delineated by a warning line that prevents a worker from walking or working too close to an edge. Considered an "administrative control".* | Low. Designated areas, similar to railing, collectively protect workers from a fall hazard without requiring the worker to do anything. | Up-front costs are low, with little long-term costs. There is some management required to implement the correct work rules and verify proper use. Can be used in conjunction with railing to provide a passive, budget friendly solution. |

* See hierarchy of controls

Hierarchy of Control



From a safety perspective, if all the options will work in a given situation, guardrail remains the clear choice. It is passive (does not require anything from the user), collective (has no limits on the number of people that can use it), and typically the best investment (little/no long-term costs).

If PPE is desired or the only option, we always recommend travel restraint above fall arrest where applicable. Since it limits the worker so he/she cannot reach the hazard, it reduces the degree of risk a worker is in. The choices that OSHA has opened up for employers brings legitimacy for what many companies have been doing for years. Use these options to choose the right solution for your workers.

2. Where to Protect

For the past 47 years, OSHA was a bit too hopeful about the location of fall protection.

What they said was: **OSHA 1910.23(c)(1) Every open-sided floor or platform 4 feet or more above adjacent floor or ground level shall be guarded by a standard railing (or the equivalent as specified in paragraph (e)(3) of this section) on all open sides except where there is entrance to a ramp, stairway, or fixed ladder.**

What did this mean? Virtually every roof (open sided floor) was required to be completely surrounded by railing. The code even said that no matter how far away from a fall hazard a worker was, distance alone was not sufficient to protect that worker from a fall. As time passed and the unreasonableness of this code became apparent, OSHA commented in their letters of clarification that a worker 50'-100' from an edge, with proper training, was safe enough.

That still left a lot of room for interpretation, as well as leaving employers who wanted to comply in a difficult spot. Compliant protection was often financially out of reach, requiring local personnel (not fall protection experts) to make gut decisions on where protection should be implemented. Because the code was ambiguous, the implementation of these solutions often went unfunded due to corporate decision makers being unconvinced that protection was needed.

The questions that came up were simple and should have had simple answers:

Where is fall protection actually required? How does one know for sure that we have done enough to satisfy OSHA? Unless I protect every single edge, no matter how infrequent or temporary the work on that roof may be, have I truly done enough to ensure that OSHA will be satisfied?

That takes us to the new regulation - a breath of fresh air when asking, "How do I comply?" OSHA now has married common sense with code compliance. Common sense tells you that a worker who is very close to an edge is in more danger than a worker very far from an edge. Common sense also tells you that a worker who is frequently near a fall hazard is in more danger than a worker who is infrequently near a fall hazard. OSHA now agrees with you! Let's take a look:

OSHA now uses two key terms that you will need to get familiar with:

1. Infrequent

Regular maintenance that is performed no more than once/month, or work that is performed sporadically as needed (equipment breakdown).

2. Temporary

Simple, short-term tasks that generally last less than 1 hours.

How to be compliant with the new OSHA regulations for Fall Protection

| Location of Work | Temporary and Infrequent | Temporary or Infrequent, or neither |
|--|---|-------------------------------------|
| Within 6' of fall hazard | Fall protection required | Fall protection required |
| Between 6' and 15' from fall hazard | Fall protection or Designated area required | Fall protection required |
| 15' or more from a fall hazard | Protection not required | Fall protection required |

So, now we have the conditions of when protection is needed and specific distances as to where protection is needed. That's a big improvement. Let's look at some examples:

- Joe, the maintenance worker, needs to change an air filter on an HVAC system ever 90 days. The work only takes him 30 minutes to complete, but the unit is located 9' from a fall hazard. What protection is adequate? In this case, a warning line, providing him with a designated area is sufficient.
- Joe, the maintenance worker, also needs to perform a weekly check of refrigeration lines that run along the edge of his building. The walking path for this activity runs parallel to the roof edge, 12' away, and the task only takes 20 minutes. In this case, his work is temporary but is also frequent, requiring fall protection to be in place.
- Joe also has a fan unit that needs a periodic belt change, a task that takes 45 minutes. He will only need to service the unit once or twice a year, but the unit is located 4' from the roof edge. You guessed it - fall protection is required. If the unit was located a few feet further into the roof, a designated area would have been sufficient.

3. Ladders

OSHA historically allowed employers to make a decision about ladder protection. For tall ladders (over 24'), they needed to either install a cage, or provide a ladder safety system. Up to this point, ladders that exceed 24' have traditionally been installed with cages around them. If the option exists to use ladder safety systems, why did employers choose cages? The general thought on cages, similar to guardrail, has been that they provide passive protection to the employees that use them. They don't require special training, management, certifications, etc...

Unlike Guardrail, though, **they don't actually prevent someone from a fall**. They are designed to help a worker rest if he is in distress (lean back into the cage) and direct the descent of a fall to a lower landing. However, **a cage cannot prevent a fall**.

A ladder safety system was always an option but rarely used. A ladder safety system is defined as... "a system designed to eliminate or reduce the possibility of falling from a ladder." See the difference? A cage simply directs a fall to a lower landing - possibly 30' below the worker. A ladder safety system can actually prevent a fall from happening. The new code phases out the use of cages on ladders over 24' in height (over the next 20 years) and will begin to require employers to provide ladder safety systems on all ladders over 24' in height.

How to be compliant with the new OSHA regulations for Fall Protection

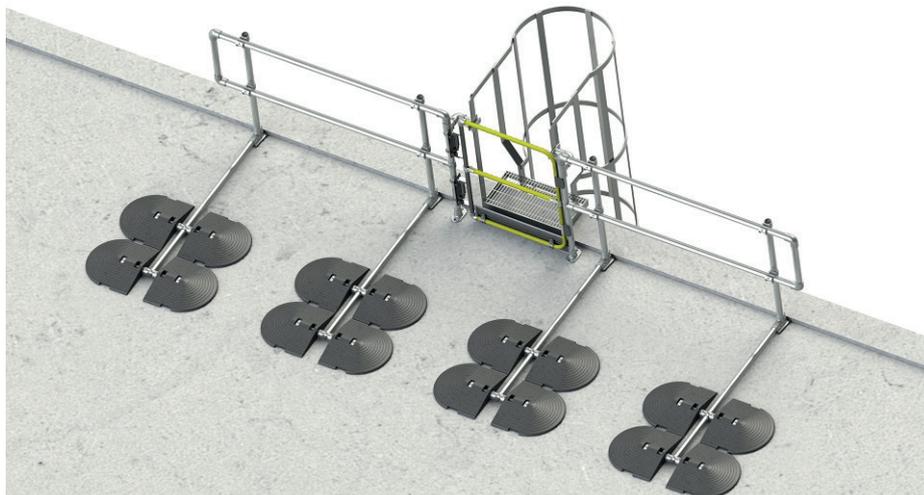
What exactly is a ladder safety system? A ladder safety system typically represents a body harness, short lanyard, and a continuous vertical lifeline (either cable or rigid rail) that extends the entire height of the ladder. The system is required to handle a 500lb load being dropped 18" and must be designed so a worker can freely climb without needing to manipulate the system (push, pull, etc.).

Basically it's a fall protection system that stops a worker from falling more than a few inches.

| Ladder Height | Cage | Ladder Safety System |
|--|--|---|
| Up to 24' (2-story building with parapet) | No protection required. | No protection required. |
| Above 24' | Allowed on all ladders installed before November 19, 2018. A ladder safety system will need to be installed by Nov. 19, 2036. | Allowed on all ladders installed before November 19, 2018. A ladder safety system will need to be installed by Nov. 19, 2036. |
| Multiple Sections | Rest platforms are required every 50', and ladder sections must be offset from each other. Cages are allowed on all ladders installed before November 19, 2018. A ladder safety system will need to be installed by Nov. 19, 2036. | Rest platforms are required every 150'. |
| Replacement of ladder sections | On November 19, 2018, cages will no longer be acceptable for replacement sections of a ladder. | Any sections replaced on or after November 19, 2018 need to have a ladder safety system installed on the replaced section of the ladder |

What didn't change in the new code is the protection required at the top of the ladder.

Let's not forget that the transition from the ladder to the working walking surface is statistically the most dangerous fall hazard. Once a worker has reach the elevated surface, there needs to be a fall protection system in place. A ladder, either on the exterior of a building or through a hatch, represents a location where a worker will be within 6' from a fall hazard. A safety gate across the ladder opening as well as a fall protection system (such as railing) needs to protect a worker from this hazard.



4. Training

Training has always been a necessary piece of the OSHA code. The most notable addition of the new code is not a change to training, but a deadline.

By May 17, 2017, employers must ensure that employees are trained. If any of the changes already discussed will change the way employees work, the systems they utilize, the gear they wear, or any other functional change to how an employee safely does their job, they must be re-trained by May 17th (assuming they were once trained). If employees have not already received training, read between the lines - OSHA is not going to play nice with this standard.

They have always valued training, but the reiteration will likely lead to a focus in enforcement. Additionally, with all of the talk today about immigration, it is also worth noting that training “must be understandable”.

If employees are not English speaking, training must be provided in their language. This is not a change, but a friendly reminder to provide meaningful training to employees.

We hope this article has been of help to you. If you have any questions that were not answered in this article, please feel free to reach out to our safety experts. We hope to partner with you as you strive to make your workplace free of life-threatening hazards.

Talk to the Expert

We want to make you rest whilst your workers are up on every work at height!
Please contact us and we will find the right solution to make your workplaces at height safer.



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