



## SOLVING THE HIERARCHY DILEMMA

Problem solving is one of the most complex of all intellectual functions. Although there is often more than one solution to any problem, the most effective process starts with an analysis of the root cause and ends with corrective actions. Safeguarding work at height is no different.

Once a fall hazard has been identified and the risk to that exposure has been determined to be likely, it's time to find the best form of protection. Sorting through fall protection regulations and best practices can be challenging, especially for those outside of the industry.

The Occupational Safety and Health Administration (OSHA) and the American National Standards Institute (ANSI) both provide models that are useful in evaluating fall prevention options. The hierarchies rank the most common corrective actions from best to worst.



## What are *The Hierarchies*?

The overlaps and similarities between the two hierarchies often cause confusion. However, it is actually quite simple to keep them straight. The ANSI hierarchy applies specifically to working at height, whereas the OSHA hierarchy applies to wider range of potentially hazardous workplace behaviors. When dealing in Fall Protection matters, clearly only one model is useful and relevant.



### Hierarchy of Fall Protection

- 1) Elimination or Substitution
- 2) Passive Fall Protection
- 3) Active Fall Restraint
- 4) Active Fall Arrest
- 5) Administrative Controls



### Hierarchy of Controls

- 1) Eliminate/Substitute
- 2) Engineering Controls
- 3) Administrative Controls
- 4) Personal Protection Equipment

## How to Use the Hierarchy of Fall Protection

Being too quick to implement even the most advanced fall protection solution, without first carefully identifying and evaluating the risks, hazards and the work performed at height, can often lead to even more issues than were originally present.

Thorough knowledge of OSHA requirements and the major updates that took place in 2017, the effective application of ANSI Z359.2 (Minimum Requirement for a Comprehensive Managed Fall Protection Program) and ANSI's Hierarchy of Fall Protection all separates a Fall Protection Specialist from a Fall Protection Salesperson.



The best approach is one that follows a systematic way of reviewing needs and working according to the following path to implement a solution. All too often, people jump right into tying off. However, there are many options to choose from that protect a worker by eliminating or controlling fall hazards.

Ranked in the order of best to worst or most preferred to least preferred...



### #1 Eliminate the Hazard

Elimination or substitution of the unsafe work routines is a method that ANSI and OSHA both designate as the preferred way to address fall hazards. Furthermore, legislation requires employers do everything in their power to eliminate hazardous work from their operations.

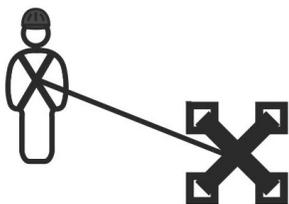
“Designing out the risk” can involve changes to procedures, redesigning the work process, or relocating the work area. When people must work at height and it’s not feasible or cost effective to eliminate or substitute the hazard, we must move one rung down in the hierarchy.



### #2 Guard the Hazard

Passive fall protection often looks like barriers such as guardrail, parapet, handrails and self-closing gates or a combination thereof. One major benefit to this level of fall protection is ease of use...limited to no user training is required. If passive fall protection cannot be implemented

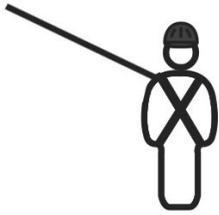
effectively active systems must be considered.



### #3 Prevent the Fall

Active restraint systems or “tie off” typically relies on a specially designed harness and lanyard and a lifeline system positioned a set distance, usually 15’ away from a leading edge. They restrict movement or body

positioning making it impossible for the worker to reach the hazard. These systems require some level of user training but are usually easy to use and understand. When an active restraint system prevents a worker from completing a task, we move to considering an active arrest system.



## #4 Catch the Fall

Systems that are engineered to provide active arrest fall protection give users a free range of motion to accomplish their work at height. They do not prevent falls. They prevent landings by arresting a worker in freefall.

Workers do not make contact with a lower level, object below the at height working surface, or the ground. Injuries can still be sustained. The reason this is less preferred should be obvious. However, many owners of active arrest systems overlook the complexities of these systems. Worker training and competency including an effective Rescue Plan (what to do in the event of an arrest) that enables the worker to be lowered in under 15 minutes is critical.



## #5 Warn Workers

Administrative Controls merely bring awareness to the hazard through warning signs or demarcation systems. They are the least reliable form of Fall Protection because the hazard is still present and unguarded. Safety relies on workers paying attention, following safety protocol and using approved behaviors. However, under certain circumstances Administrative Controls that are properly enforced and accepted by the worker can be all that is required.

## In closing...

All too often, companies tend to implement what they consider a quick fix that doesn't eliminate or adequately address the safety hazard. In some cases, the solution might not even meet minimum federal requirements or local building codes. This is why it is critical that a competent person follows ANSI Z359.2 Minimum Requirement for a Comprehensive Managed Fall Protection Program to perform and prepare a fall hazard survey report. After this point, the Hierarchy of Fall Protection can help gain a better perspective of the problem and arrive at the best solution.

