Risk Control

100 Percent Fall Protection

Introduction
In the construction industry, falls are the leading cause of work-related injuries and fatalities. BLS statistics show that from 2004 to 2009, 2,051 workers died from falls with a total of 332 fall deaths in 2008.

Similar results were shown in a five-year claims history analysis conducted by Travelers. The claims analysis examined the claims history of 500 contractors and showed that 35-40 percent of all workers’ compensation injuries and fatalities were attributed to falls and accounted for 40 percent of all claim dollars paid.

The necessity for good fall prevention programs in the construction industry is well documented by numerous studies. A small number of contractors have either recognized the problem and/or have been forced by state agencies or clients to implement strict fall management programs. Yet, few contractors really take an aggressive, proactive approach toward reducing fall exposures. The goal of any aggressive fall management program is to achieve 100 percent fall protection.

The following information defines and addresses the need for 100 percent fall protection in the construction industry.

What is 100 Percent Fall Protection?
One hundred percent fall protection means that all workers who are exposed to fall hazards are properly protected by either preventing falls or protecting workers who do fall. This does not mean workers will never fall again, but rather that should a fall occur, serious injury to workers will be eliminated. Fall exposures can be prevented by:

- ensuring ladders are secured and inspected;
- using guardrails and complete decking on scaffolds;
- establishing walls, floors and guardrails;
- using guarded work platforms and aerial lifts;
- changing work operations; and
- restricting travel of workers.

When the prevention of fall hazards is not possible because of the work methods being used, personnel nets or personal fall protection systems can be used to mitigate the effects of elevated falls.

Can 100 Percent Fall Protection be achieved?
Achieving 100 percent fall protection begins by planning the specific work methods through a collaborative effort among managers, estimators, supervisors, foremen and workers. At a minimum, planning should include an in-depth analysis of work tasks, including travel to and from the work site and proper selection of equipment.
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Fall protection planning should be supplemented by initial and ongoing training, knowledgeable supervision and regular maintenance. In other words, 100 percent fall protection can be achieved through a complete systems approach to each potential exposure before work begins.

Hierarchy of Fall Hazard Control

1. **Elimination of fall hazards** is the first and best line of defense against falls from heights. This requires a careful assessment of the workplace and the work itself. The idea is to design safety into the work process, and not simply to try to add safety as an afterthought to an inherently unsafe work procedure. Changes in work processes or construction methods and scheduling can eliminate some fall exposures such as: structures being partially erected at ground level with only final placement at height; or, permanent stairs installed as floors are constructed to minimize the use of ladders for access.

2. **Prevention of falls** is the second line of defense when fall hazards cannot be entirely eliminated. Fall prevention involves making changes to the workplace rather than to rely on the workers’ behavior and personal protective equipment to prevent falls. Examples include use of stairs, guardrails, covers, barriers and travel restraint systems to prevent the worker from direct and unprotected exposure to fall hazards. These techniques prevent the fall before onset.

3. **Fall Protection** is the last line of defense. It should be considered only after determining that the fall hazard cannot be eliminated or prevented. This is the domain of personal fall protection and calls for equipment such as safety nets, harnesses, shock absorbing lanyards, retractable lifelines, anchorage connectors and solid anchor points. Fall protection reduces the risk of injuries resulting from falls. It is essential that workers and supervisors receive training on the proper use and hazards of using personal protection. In addition, a rescue plan must be developed prior to workers being exposed to the fall hazard.

Conclusion

It takes commitment and a team effort to complete a project from start to finish. Fall prevention and fall hazard control require the same commitment and effort.

Reference

American Society of Safety Engineers, *Introduction to Fall Protection*.

For more information, visit our Web site at travelers.com/riskcontrol, contact your Risk Control consultant or email Ask-Risk-Control@travelers.com.