

# FALL PROTECTION:

By Ken Lane

## PLANNING, TRAINING, AND VIGILANCE CAN SAVE LIVES

Now more than ever it is essential for employers with personnel who work at heights to provide comprehensive fall protection. Last year 6,771 fall protection citations were issued by the Occupational Safety and Health Administration (OSHA), placing second on OSHA's 2009 list of the ten most cited violations.

Over 100,000 fall-related incidents are reported every year, with falls ranking number one in construction industry fatalities. According to data from the Bureau of Labor Statistics, there were 442 construction worker fatalities during 2007 as a result of falls. Recent cases from OSHA's 2010 fatality reports include a Louisiana worker who was knocked from a manlift by a beam, plunging 16 feet to his death, and a worker in Texas who died from multiple injuries following a 10-foot fall from a ladder inside a manhole.

Clearly, employers need to implement stronger fall protection programs to increase worker safety and to help lower the grim statistics. A review of the OSHA Standards for Construction is a good first step in the fall protection process. (Follow this link [www.osha4you.com/falls.html](http://www.osha4you.com/falls.html) for fall protection checklists and additional resources.)

### OSHA STANDARDS

The OSHA Standards for Construction require fall protection at 6 feet or above for:

- Unprotected sides and edges, including wells, pits, and shafts
- Walking/working surfaces, including ramps, runways, and walkways, and leading edges
- Hoist areas, and roof holes, including skylights
- Formwork and reinforcing steel
- Excavations and above dangerous equipment
- Overhand bricklaying and related work
- Roofing work and precast concrete erection

- Residential construction and wall openings

OSHA Subpart M establishes the criteria and practices for fall protection systems, including guardrails, safety nets, personal fall arrest, positioning devices, warning lines, controlled access zones, safety monitoring, protection from falling objects, and fall protection plans.



*This photo depicts an incorrect application of a personal fall arrest system—no harness, lanyard, or anchorage point—a violation of OSHA standards.*

### FALL PROTECTION PLAN

A well-designed, written Fall Protection Plan is the surest way to reduce risk and save lives. OSHA mandates that the Fall Protection Plan be developed by a qualified person who has acquired knowledge through education or extensive training, to successfully implement an effective fall protection program. A copy of a site-specific and up-to-date plan should be maintained at the worksite, and only modified by a qualified person.

An effective process for implementation of a successful Fall Protection Plan would include:

- Performing a thorough hazard analysis to determine the areas of risk;
- Engineering out the hazards if possible;
- Implementing fall prevention systems such as guardrails, handrails, and warning lines wherever possible;
- Selecting appropriate fall arrest equipment for the worksite and personnel;
- Choosing and installing appropriate anchorages, along with necessary horizontal and vertical equipment;
- Developing contingency plans and determining appropriate rescue equipment;
- Designing and delivering a comprehensive training program on all aspects of fall protection and rescue.

The complete Fall Protection Plan should include a statement of policy, a detailed list of the fall prevention measures being implemented, and delegation of ongoing responsibilities to a

### ABOUT the AUTHOR

Ken Lane, instructor at Northern California's OSHA Training Center near San Francisco, has over 30 years of safety training experience including responsibilities as a construction manager at Lawrence Livermore National Laboratory. For more information, visit [www.OSHA4you.com](http://www.OSHA4you.com) or [OTC@clpcd.org](mailto:OTC@clpcd.org).

fall protection competent person to oversee inspection, record keeping, maintenance, equipment replacement, incident reporting, enforcement, accident investigation, training, and changes to the plan.

A well-formulated rescue strategy for each potential fall situation is an essential aspect of a Fall Protection Plan. According to OSHA, "the employer shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves." The timing of a rescue can mean the difference between minor injuries and death. For example, workers who fall in a harness can tolerate a very narrow limit of hanging/suspension time before they face a risk of excessive pressure on the femoral artery. If they are not able to rescue themselves, planning ahead for other options is crucial, whether it's ensuring that ladder trucks are able to reach hanging workers or determining that medical and rescue teams can reach the worksite quickly if necessary.

Other important features of a thorough Fall Protection Plan include:

- A written discussion of alternative measures to reduce or eliminate fall hazards, including the use of scaffolds, ladders, and/or vehicle-mounted work platforms;
- Documentation of the reasons why the use of conventional systems is not feasible or would create a greater hazard;
- Designation of areas where conventional systems are not used such as controlled access zones (CAZ) requiring a safety monitor;
- Documentation of proper equipment care, including inspection before each use for corrosion, deformation, cracks, cuts, abrasions, and other potential hazards;
- A complete list of all employees at the worksite.

A well written Fall Protection Plan serves as the centerpiece of a strategy that promotes safety and dramatically lowers potential risks.

### COMPETENT PERSON KEY

The OSHA Standards outline the need for an on-site fall protection competent person who has the ability to predict local hazards and the authority to take prompt corrective action. The fall protection competent person must be fully trained and qualified to monitor:

- Fall hazards in the work area;
- The correct procedures for erecting, maintaining, disassembling, inspecting, and operating the required fall protection systems;
- The correct procedures for handling and storage of equipment and material;
- The limitations on the use of mechanical equipment during work on low sloped roofs;
- The erection of overhead protection;
- The role of employees in the safety monitoring system and in the fall protection plan.

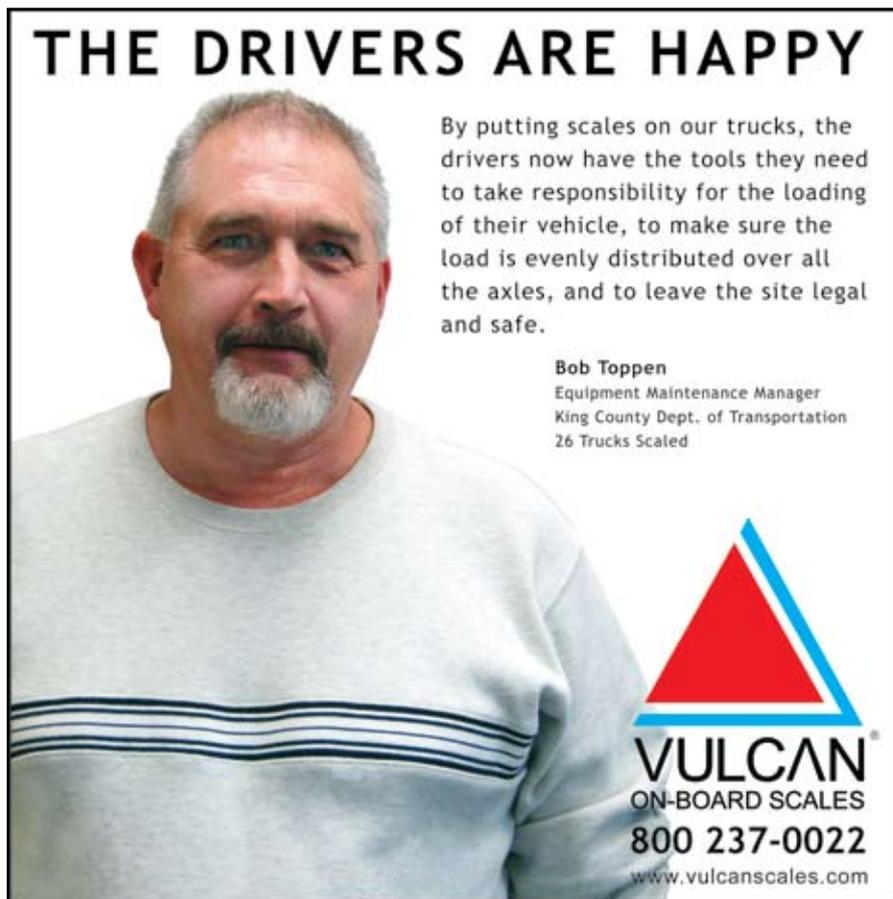
### ESSENTIAL HANDS-ON TRAINING

In addition to having extensive knowledge of Subpart M of the OSHA Standards for Construction, the fall protection competent person is responsible for providing hands-on training to every employee who might be exposed to fall hazards. The training should enable employees to recognize the hazards of fall exposures and instruct them on the procedures to be followed for each type of fall protection. The training should include time to learn and demonstrate the skills needed to effectively use each piece

of equipment, provide clear explanations of equipment/hardware compatibility, and show how to calculate free fall distances. A comprehensive written test, as well as performance testing on the equipment and the systems being used should be administered during the training.

A certification of training record should be maintained, listing the employee's name, the date of the training, and the trainer's signature. It is also good management practice to keep a list of equipment and the types of systems on which the employee was trained. Retraining is required when an employee does not have a clear understanding of the requirements and procedures, or when there are changes in the workplace or in the types of fall protection systems or equipment being used.

The vigilant employer that provides and successfully executes a well thought out Fall Protection Plan, a highly qualified fall protection competent person, and a comprehensive training program for all employees will be well on the way to establishing a workplace that complies with OSHA standards, greatly reduces falling hazards, and ultimately saves lives. ■



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