

# Disastrous drops

Falls are the number one cause of death in construction accidents

**The accident:** A bridge repair company was performing work on an interstate highway bridge. A barrier wall had been removed and four inches of the concrete pavement had been chipped from the bridge deck. The crew was making concrete forms for the bridge decking and the permanent barrier walls. A two-cable barrier had been erected that functioned as a guardrail, lifeline and a place where workers would tie-off. One crew member was ensuring the jacks for the concrete forms were level; a task that required him to step outside the lifeline and use a string and a level. Upon stepping over the barrier and onto a wood plank, he fell 27 feet onto railroad tracks below. He died in surgery several hours later.

**The bottom line:** A post-accident investigation determined that the worker had donned a fall protection harness with lanyard attached; however, he failed to attach the lanyard to the cable barrier. The investigation also found that the wooden board the worker stepped on was placed across thinner wooden boards that rested directly on the jacks. Neither the larger nor the smaller boards were secured to the jacks or to the bridge. Furthermore, although the company held frequent toolbox talks and annual safety meetings, the worker had not attended the two previous fall arrest training sessions.



Illustration by Don Lomax

Falls are the most common cause of fatalities in construction accidents. Minimize your risk by following proper procedure and using common sense.

**Secure steps** – In this incident, the worker was put at risk for slipping because to level the jacks, he needed to step from a firm surface onto an unstable surface. Rather than climbing over the cable barrier, an aerial lift would have been a better solution. The cable barrier could also have been moved back from the edge of the bridge deck, allowing the worker to safely step over the cable onto a secure surface and then onto the board. Ensuring you have firm footing at all times is crucial to avoiding falls.

**Check your protection** – The Federal Code of Regulations that covers steel erection requires steel

workers to wear and use personal fall arrest systems. Although this worker was wearing a fall arrest system, it was unable to save him without being attached to the cable barrier. If you're working above 10 feet with an unprotected edge, you're required to use a fall restraint or fall arrest system, or be protected by guardrails, safety nets or positioning devices. Make sure your system is attached correctly and is in good working order, with no damage or wear.

**Train regularly** – Your company will have a program in place that includes training on how to avoid falls, and on how to properly wear and use a fall arrest system. Even if you've been through the training before, regular updates will keep the information fresh in your mind, increasing your awareness of possible hazardous situations.

Information for this Safety Watch is from an accident report, the Center for Disease Control's NIOSH Fatality Assessment and Control

Evaluation program and Occupational Safety and Health Standard 29 CFR 1926. It is meant for general information only.

Date of safety talk: \_\_\_\_\_ Leader: \_\_\_\_\_  
 Attending: \_\_\_\_\_