NIOSH

ISSUES NATIONWIDE ALERT

on Dangers of Working from Scaffolds

• On September 5, 1992, a 45-year-old masonry worker fell 50 feet to his death from a scaffold in New York.
• On September 8, 1992, a 34-year-old painter plunged 364 feet from a bridge in Pennsylvania when a scaffolding cable broke. He was killed instantly.
• On October 2, 1992, two bricklayers, age 35 years and 50 years, fell 47 feet to their deaths when the plywood on their staff old gave way at a construction site in Missouri.
• On October 27, 1992, a construction worker fell 13 feet when a scaffold collapsed in North Dakota. Fortunately, he was wearing a safety harness which prevented serious injury.

Tragically, these incidents are neither unusual nor unique. The National Institute for Occupational Safety and Health (NIOSH) reports that falls are a leading cause of traumatic occupational death. For the period 1980-1985, the NIOSH National Traumatic Occupational Fatalities (NTOF) database indicates that 3,491 workers fell to their deaths while trying to earn a living. Of those workers identified, 461 (17 percent) fell while working from a scaffold.

OSHA promulgated regulations in 1971 to protect workers in both general industry and construction from the hazards of working from scaffolds. Yet Americans continue to die each and every year in falls from scaffolds which could have been prevented. OSHA is currently revising the construction industry safety regulations addressing all types of scaffolds. NIOSH has recently issued an “Alert” to warn workers about the dangers of death and injury caused by falls from suspension scaffolds, one particularly hazardous type of scaffold.

None of the deaths described in this Alert would have occurred if the existing and proposed OSHA regulations had been followed.

The cases reported in the Alert represent only a small percentage of the actual deaths caused annually by falls from scaffolds in the United States. To prevent future deaths and injuries, workers must be told of the hazards they face and the means of prevention. The following summarizes the key information in the NIOSH Alert.

Preventing Worker Injuries and Deaths Caused by Falls From Suspension Scaffolds

Who is at risk?

Workers who use suspension scaffolds are at risk. Suspension scaffolds are defined as one or more working platforms suspended by ropes or other means from an overhead structure.

Why are workers dying?

Workers in danger of falling from suspension scaffolds. Falls frequently occur as the result of improper installation or operation of scaffold equipment, defective scaffold equipment, insufficient worker safety training, or the failure to provide or use personal fall protection equipment. None of the deaths described in this Alert would have occurred if the existing and proposed OSHA regulations for the safe use of scaffolds had been followed.

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How can workers be protected?
The following precautions should be taken to prevent serious injuries and fatal falls while working from suspension scaffolds:

- Comply with current and proposed OSHA regulations for working with scaffolds. Proposed regulations include requirements for all scaffolds regarding capacity, construction, access, use and fall protection.
- Assure that design and construction of scaffolds conform with OSHA regulations.
- Shield scaffold suspension ropes and body belt or harness system droplines (lifelines) from hot or corrosive processes, and protect them from sharp edges and abrasions.
- Inspect all scaffolds, scaffold components and personal fall protection equipment before each use.

- Provide personal fall protection equipment and make sure that it is used by all workers on suspension scaffolds. When working from a scaffold, always use fall protection (both guardrail systems and body belt or harness systems).
- Use structurally sound portions of buildings or other structures to anchor droplines for body belt or harness systems and tiebacks for suspension scaffold support devices.
- Secure droplines and tiebacks to separate anchor points on structural members.
- Provide proper training for all workers who use any type of suspension scaffold or fall protection equipment. If you work from a scaffold, participate in any training programs offered by your employer.
- Follow scaffold manufacturers’ guidance regarding the assembly, rigging and use of scaffolds.

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Additional cost to the applicator is the time that must be spent trowelling details such as reveals or special profiles in thicker base coat.

Further, PM systems require different design to accommodate the stresses of thermal expansion and contraction. In PM systems, control joint appliances must be positioned in routed grooves at the face of the insulation board to break the facade into stress-relieving panels. Panel sizes generally cannot exceed 150 square feet, or a length of 16 feet in any dimension, with a dimensional ratio of 3/2 or less. To an architect, this presents an aesthetic challenge, especially if features such as reveals and projections are incorporated into the design. Even higher cost results when accessories are required to be of zincalloy composition to ensure against rust. This in itself can be a determining factor that can break the budget of a potential PM application, because the cost of a zinc control joint can be over $1.00 per lineal foot. These