

Obtained from WorkCover Website ' Safety Alert issued on 7 Sept 05'

Safety Mesh Used on Roofs

This safety alert addresses the effective use of safety mesh to prevent falls when working on commercial or industrial buildings.

Background

The *Occupational Health and Safety Regulation 2001* requires that persons be protected from the risk of falling when working at height, and it specifies a hierarchy that must be used when applying control measures.

Under these controls, it is preferable that falls are prevented rather than arrested by fall arrest devices.

When working on a roof, there are two potential fall areas, from the edge or through the roof itself.

To prevent persons falling from the edge, a scaffolding or guardrail system should be erected along the length of the building where a person could fall.

There is also a risk of persons falling through brittle roofs, penetrations in a roof or at the leading edge of the cladding while it is being installed.

The Code of Practice *Safe work on roofs Part 1: Commercial and industrial buildings*, as called up under the Occupational Health and Safety Act 2000, gives guidance on means to control the risks associated with working on commercial and industrial buildings and advice on how to prevent persons falling through the roof while installing the cladding, by recommending that safety mesh be installed on the roof structure, beneath the cladding.

In July 2005 the NSW Coroners Court found that the safety mesh that should have prevented a young construction worker falling had not been installed correctly, resulting in the death of this worker.

Inspectors from WorkCover have confirmed that at some worksites they have recently visited safety mesh is still not being not being installed correctly and therefore does not serve as an effective control measure, but in fact a potential death trap.



View of the Test Rig with Mesh installed prior to TestSafe's vigorous testing process

What should be done?

The Code of Practice requires the mesh to be a permanent fixture between the cladding and the structure so it can provide a control measure for persons who are working on the roof, or who may need to work on the roof at a later date.

This is particularly important where it may be necessary to remove some or all of the roof cladding for maintenance purposes or in demolishing the building.

In order to be an effective control, the mesh must be strong enough to support a person who may fall onto it, including falling from the same level, and the manner in which it is installed must maintain this strength.

The mesh itself should comply with the Australian Standard AS/NZS 4389 *Safety Mesh*.

Particular care is required to ensure that the mesh is securely connected to the building structure and the overlap between adjacent sections of mesh is sufficient to generate the necessary strength to resist the force of a person falling onto it.

Note: AS/NZS 4389 replaces AS 1639 that is referenced in the Code of Practice but in all other matters the Code prevails over the Australian Standards.



View of the Mesh and Test Setup from different angle

What must be done?

Employers must provide a safe workplace for all employees and identify the hazards, assess the risks and eliminate or control any foreseeable risk to the health and safety of employees or others at that workplace.

It is therefore essential that safety mesh is incorporated in the design specifications of new buildings, and appropriate persons, including structural engineers and developers, ensure that it has been correctly installed before completion of the building and/or prior to any such building being placed in the control of others.