Guidance Note

Fall Prevention for scaffolders

This Guidance Note was developed in consultation with stakeholders to recommend the highest reasonably practicable level of fall protection for scaffolders when erecting, dismantling or altering scaffolding. It will assist employers of scaffolders, employers engaging scaffolding contractors and scaffolders in meeting their obligations under the Victorian *Occupational Health and Safety (Prevention of Falls) Regulations 2003*. It will also assist health and safety representatives and organisations involved in the training and instruction of scaffolders.

Scope

This Guidance Note deals specifically with the erection and dismantling of typical independent scaffolds constructed from prefabricated modular scaffolding systems.

It may not be appropriate for unorthodox or unusual scaffold configurations, such as large birdcage scaffolds. Work practices for such scaffolds should be developed by employers on a case-by-case basis in consultation with the scaffolders and their health and safety representatives.

It also provides general advice on safety harness systems for scaffolders.

This Guidance Note supplements, and should be read in conjunction with, WorkSafe's publications:
- *Prevention of Falls in General Construction* (Code of Practice No. 28, 2004), and
- *Prevention of Falls in Housing Construction* (Code of Practice No. 29, 2004).

Typical Fall Hazards Faced By Scaffolders

A key principle of the Victorian *Occupational Health and Safety Act 2004* (the Act) is that:
The importance of health and safety requires that employees ... be given the highest level of protection against risks to their health and safety that is reasonably practicable in the circumstances.
[section 4(1) of the Act]

There is the potential for scaffolders to fall from incomplete scaffolds during their erection and dismantling. In particular, scaffolders can be exposed to fall hazards:
- during the placement or removal of scaffold planks (internal fall).
- from the open sides or ends of the scaffold (external fall).
- in climbing from one lift of the scaffold to the next lift (climbing fall).

Controlling the risk of internal falls by fully decking each lift

The risk of internal falls while erecting a scaffold can be controlled by fully decking each lift. This involves:
- positioning a full deck of planks at each lift,
- positioning planks on the next lift whilst standing on a fully-decked platform, and
- leaving each lift fully decked in place until it is dismantled.

During dismantling of a lift, planks are removed whilst standing on the fully-decked platform immediately below.

Advantages of adopting this method include:
- scaffolders working aloft cannot fall through the scaffold.

- principal contractors can authorise work from any given lift of the scaffold without the time delay and expense of having working platforms relocated from one lift to another lift. Note: all platforms will require full edge protection (guardrails-midrails-toeboards or guardrails-brickguards) to enable such authorisation.
- shade cloth and other types of containment sheeting can be installed safely and easily.
- there is improved access to scaffolds for routine inspections.

Precautions associated with this method include:
- the scaffold design must be checked to ensure that the placement of a full deck at each lift will not adversely affect the working capacity of the scaffold's standards and/or supporting structure.
- where the number of fully decked lifts exceeds the number of simultaneously used and/or loaded working platforms that the scaffold can safely support, decks on non-working lifts must be physically closed off and signposted to prevent their inadvertent use.
- where the provision of additional decks of planks involves hazardous manual handling tasks, a risk assessment must be conducted and appropriate control measures must be implemented. Control measures should be, in the first instance, mechanical aids such as cranes, hoists or forklifts. Where this is not reasonably practicable, consideration should be given to other measures such as increased gang sizes, job rotation or additional breaks.

Controlling the risk of external falls by sequential erection

The risk of external falls from the open sides and ends of the scaffold can be reasonably controlled by adopting the sequential erection method.

This method involves the one-bay-at-a-time sequential installation of standards and guardrails (or guardrails alone where standards are already in place). This ensures that scaffolders are not required to walk further than one bay length along an exposed edge of a scaffold platform. Dismantling is simply a reverse of the sequence.

It should be noted that where platform brackets ("hop-ups") are to be installed later, where the adjacent structure is yet to be built or in other like circumstances, internal guard rails should also be installed as part of the above sequence.

The use of the sequential erection method does not preclude the use of alternative methods such as purpose-designed proprietary advance guardrail systems or other systems of work that provide an equivalent level of fall protection. The particular method selected to control the risk of external falls will depend upon the relative feasibility of its application to the scaffold configuration being considered.

Controlling the risk of climbing falls with safe access systems

The risk of climbing falls for scaffolders gaining access from one lift to the next can be controlled by ensuring that an appropriate access system is in place. This can be in the form of a stairway or ladder access that is progressively installed as the scaffold is erected, rather than added on at a later stage.

Employers should ensure that the practice of scaffolders climbing the scaffold framework is expressly forbidden.

In summary

The three typical situations where scaffolders can be exposed to a risk of a fall (internal, external and climbing) can be reasonably controlled by a combination of fully decking each lift, using the sequential erection method and progressively providing appropriate access as the scaffold is erected.

Fall Arrest & Travel Restraint Systems For Scaffolders

The use of a safety harness as a fall injury prevention system has limited practical application for the construction of scaffolds. A harness should not be used where:

- it is possible for scaffolders to hit an object prior to their fall being arrested (see Figure 1).
- its use would restrict the scaffolder's free movement so as to increase the risk of sprain or strain injuries.
- its use would present a risk of scaffold components becoming entangled or unbalanced during handling.
- there is no adequate and correctly positioned anchorage for lanyards or inertia reels.

NOTE: Safety harnesses should not be used in the erection and dismantling of normal standing scaffolds.

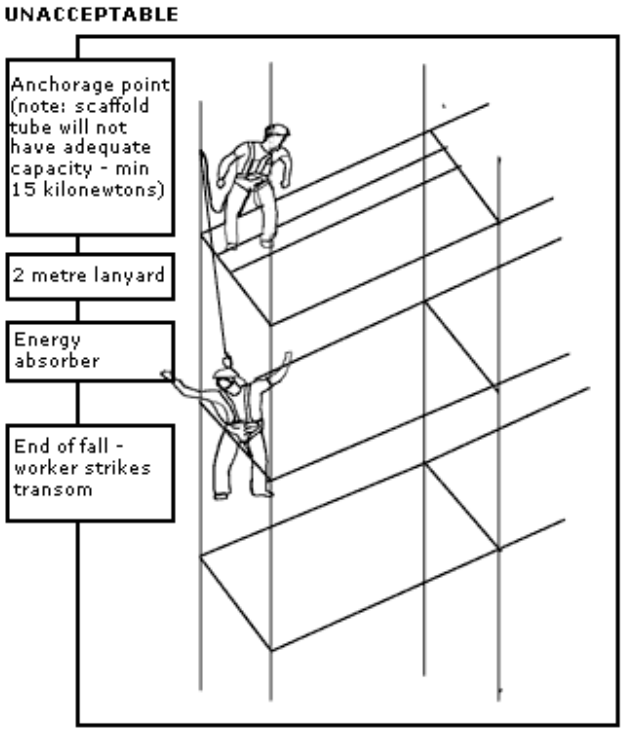

Figure 1: Why harnesses are not acceptable for normal scaffolding work (i.e. scaffolds built from the ground up).

Safety harnesses systems would be an acceptable control solution in the following situations when erecting or dismantling scaffolds:

- on hung scaffolds, where the scaffold is constructed from top to bottom and there is nothing for the scaffolder to strike below in the event of a fall (see Figure 2.)
- on cantilevered needles (for the erection of the first lift and later for dismantling that lift) and for decking between the needles.
- when attaching and removing spurs that project from the supporting scaffold or supporting structure.
- when fixing and removing trolley tracks on suspension rigs. (A trolley track is a suspended rail that supports and guides trolleys for swing stages, work cages, boatswain's chairs and other types of suspended scaffolding.)

NOTE: If harness systems are used, in all instances a scaffolder must not be exposed to a fall prior to being securely connected to, or after disconnected from, the anchorage point.

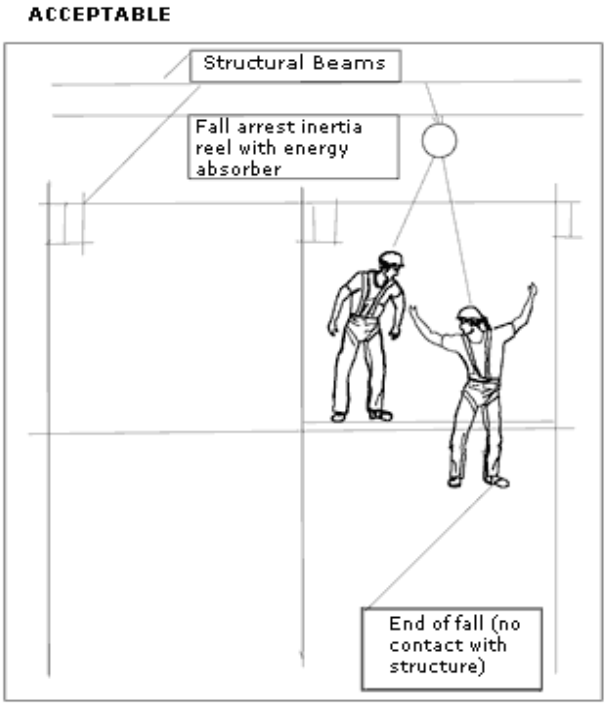

Figure 2: Appropriate use of a harness system in the erection and dismantling of a hung scaffold.

Further Information

Acts and Regulations

Occupational Health and Safety Act 2004
Occupational Health and Safety (Prevention of Falls) Regulations 2003

Acts and regulations are available from Information Victoria on 1300 366 356 or order online at www.bookshop.vic.gov.au

If you only want to view the legislation you can use the Parliament of Victoria web site; go to www.dms.dpc.vic.gov.au , click on "Victorian Law Today" and scroll down to the "Search" window.

WorkSafe Publications

Prevention of Falls in General Construction (Code of Practice No. 28, 2004)
Prevention of Falls in Housing Construction (Code of Practice No. 29, 2004)

Special note on Codes of Practice: Codes of Practice made under the Occupational Health and Safety Act 1985 provide practical guidance to people who have duties or obligations under Victoria's OHS laws. The Occupational Health and Safety Act 2004 allows the Minister for WorkCover to make Compliance Codes which will provide greater certainty about what constitutes compliance with the OHS laws.

Codes of Practice will continue to be a practical guide for those who have OHS duties and WorkSafe will continue to regard those who comply with the topics covered in the Codes of Practice as complying with OHS laws. WorkSafe will progressively review all Codes of Practice and replace them with guidance material and in appropriate cases, with Compliance Codes.

Publications are available from WorkSafe on 1800 136 089, from WorkSafe local offices or online

Other useful construction safety information is available on WorkSafe's Construction and Utilities webpage; go to www.workcover.vic.gov.au and click on the Industry Information link.

Standards Australia

AS/NZS 4576: 1995 – Guidelines for scaffolding
AS/NZS 1891.4: 2000 – Industrial fall-arrest systems and devices – Selection, use and maintenance

Copies of standards can be obtained by contacting Standards Australia on 1300 654 646 or by visiting the web site at www.standards.com.au

Victorian Scaffolding Safety Committee

The recommendations provided in this Guidance Note have been endorsed by the Victorian Scaffolding Safety Committee. The Victorian Scaffolding Safety Committee includes representatives of the MBAV's Scaffold Association of Victoria, the CFMEU Construction & General Division's Contract Scaffolders Group, and WorkSafe Victoria.