Government of Western Australia

Guidance note
Fall prevention for scaffolders
2008

commission for occupational safety and health

Foreword

This guidance note is issued by the Commission for Occupational Safety and Health (the Commission) under the provisions of the *Occupational Safety and Health Act 1984* (the OSH Act).

The introduction of the OSH Act enabled the establishment of the tripartite Commission, which comprises representatives of employers, unions and government, as well as experts. It has the function of developing the occupational safety and health legislation and supporting guidance material, and making recommendations to the Minister for Employment Protection for their implementation. To fulfil its functions, the Commission is empowered to establish advisory committees, hold public inquiries, and publish and disseminate information.

The Commission's objective is to promote comprehensive and practical preventive strategies that improve the working environment of Western Australians. This guidance note has been developed through a tripartite consultative process and the views of employers and unions, along with those of government and experts have been considered.

This guidance note has been adapted from guidance material published by WorkSafe Victoria and modified to reflect Western Australian terminology and practice following consultation with Construction Industry Safety Advisory Committee.

Scope and application of this guidance note

This guidance note applies to all workplaces in Western Australia covered by the OSH Act. It provides guidance for employers and workers on the management of safety and health hazards and risks that may arise in relation to workers constructing scaffolding and some of the legislative requirements in the OSH Act and Occupational Safety and Health Regulations 1996 (the OSH Regulations).

It is not possible to deal with every situation that may be found at workplaces. Therefore, the practical guidance in this document should be considered in conjunction with the general duties in the OSH Act, as well as specific requirements in the OSH Act and the OSH Regulations.

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 scaffolders, safety and health representatives (where they exist) and workers who may use the scaffold to carry out their work (where multi-trade scaffolds are being erected).

General advice on safety harness systems for scaffolders is also included in this guidance note.

This guidance note supplements, and should be read in conjunction with, the Commission's *Code of practice: Prevention of falls at workplaces*, the OSH Regulations, particularly regulations 3.54, 3.55 and division 7 of part 3, Australian/New Zealand Standard *AS/NZS 4576:1995 Guidelines for scaffolding* and the National Standard for Construction Work.

AS/NZS 4576:1995 is an approved code of practice in Western Australia

Legislative framework for occupational safety and health

Occupational Safety and Health Act 1984

The OSH Act provides for the promotion, co-ordination, administration and enforcement of occupational safety and health in Western Australia. It applies to all industries with the exception of mining and petroleum.

With the objective of preventing occupational injuries and diseases, the OSH Act places certain duties on employers, workers, self-employed people, manufacturers, designers, importers and suppliers.

The broad duties established by the OSH Act are supported by a further tier of statute, commonly referred to as regulations, together with non-statutory codes of practice and guidance notes.

Occupational Safety and Health Regulations 1996

The OSH Regulations have the effect of spelling out specific requirements of the legislation. They may prescribe minimum standards and have a general application, or define specific requirements related to a particular hazard or type of work. They may also allow licensing or granting of approvals and certificates etc.

Regulations and codes of practice

If there is a regulation about a risk in the OSH Regulations, it must be complied with.

If there is a code of practice about a risk, either:

- do what the code of practice says; or
- adopt and follow another way that gives the same level of protection against the risk.

If there is no regulation or code of practice about a risk, choose an appropriate way and take reasonable precautions and exercise proper diligence to ensure obligations are met.

Guidance notes and guidelines

A guidance note or guideline is an explanatory document providing detailed information on the requirements of legislation, regulations, standards, codes of practice or matters relating to occupational safety and health, as approved by the Commission.

Contents

1. Typical fall hazards faced by scaffolders

A key principle of the *Occupational Safety and Health Act 1984* (the OSH Act) is to promote and secure the safety and health of people at work.

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); and
- in climbing from one lift of the scaffold to the next lift (climbing fall).

Work practices must minimise the risk of injury from falling. Scaffolders should be trained in all aspects of fall prevention.

See AS/NZS 4576:1995 Section 9.7

The following are examples of methods of erecting and dismantling scaffolding. They may not be appropriate for every type of construction. A risk assessment should always be carried out to ensure any controls implemented are both reasonably practicable and appropriate for the work that will be undertaken on the site. A suitably trained engineer should be consulted regarding the structural integrity of the scaffolding to be used to ensure the appropriate method of fall prevention is used.

2. Controlling the risks

2.1 Controlling the risk of internal falls by fully decking each lift or floor

The risk of internal falls while erecting a scaffold may be controlled by fully decking each lift or floor. This involves:

- positioning/installing a full deck of planks at each lift or floor; and
- positioning/installing planks on the next lift or floor while standing on a fully-decked platform.

Where a risk of falling two or more metres remains after the lift or floor is decked, additional controls such as those outlined in this guide should be considered to prevent falls.

During the dismantling of each platform, planks are removed while standing on the fully-decked platform immediately below.

Precautions to be taken when fully decking each lift or floor include ensuring:

1. the scaffold design is checked to make sure that the placement of a full deck at each lift will not negatively affect the working capacity of the scaffold's standards and/or supporting structure;

2. where the number of fully decked lifts exceeds the number of working platforms the scaffold can safely support, decks on non-working lifts are physically closed off and signposted to prevent their use; and

3. where the provision of additional decks of planks involves hazardous manual handling tasks, a risk assessment is conducted and appropriate control measures 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.

Advantages of fully decking each floor or lift include ensuring:

1. scaffolders working aloft cannot fall through the scaffold;
2. main contractors can authorise work from any given lift or floor of the scaffold without the time delay and expense of having working platforms relocated from one level to another level. Note: all platforms will require full edge protection (guardrails-midrails-toeboards or guardrails-brickguards) to enable such authorisation;
3. shade cloth and other types of containment sheeting can be installed safely and easily; and
4. there is improved access to scaffolds for routine inspections.

2.2. Controlling the risk of external falls by sequential erection

See AS/NZS 4576:1995 Section 9.5

Guardrails should be installed as soon as practicable. Where a scaffolder could fall a distance of more than two metres, guardrails should be installed during erection of the scaffold. The guardrails should remain in place until that section of the scaffold is dismantled.

Adopting a sequential erection method can control the risk of external falls from the open sides and ends of the scaffold. This method involves the one-bay-at-a-time sequential installation of standards and guardrails or guardrails alone where standards are already in place.

Where platform brackets ('hop-ups') are to be installed later or 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.

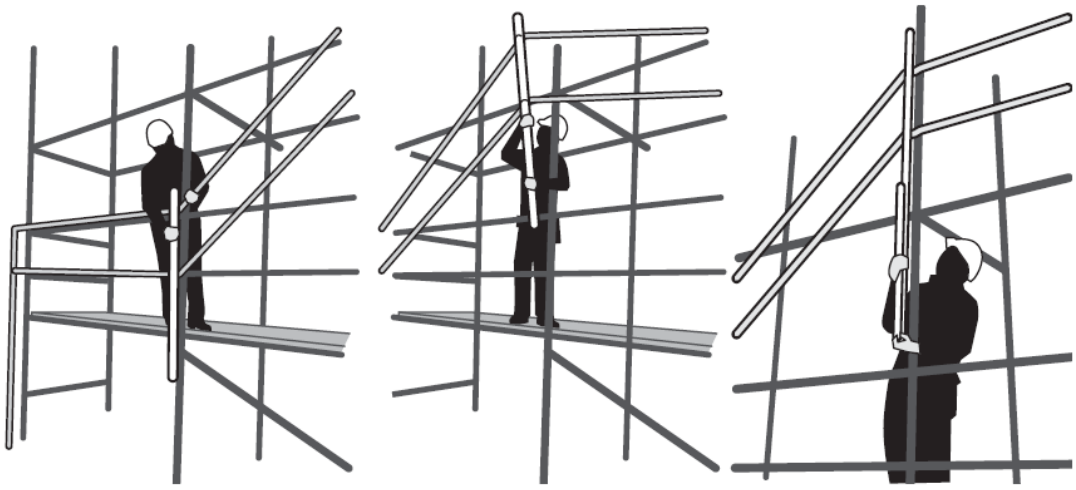
The use of the sequential erection method does not preclude the use of alternative methods. Such methods include purpose-designed proprietary advance guardrail systems or other systems of work that provide at least the same level of fall protection. The particular method selected to control the risk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

2.3 Controlling the risk of falls by using advance guardrailing systems

Advance guardrails can provide fall prevention throughout the assembly and dismantling of scaffold structures. The system can be assembled at each bay from the ground level, and then moved upwards, a lift at a time, after the scaffold's integral guardrails have been put in place.

The system can be attached to the top lift and moved down as the scaffold is dismantled. Each move is made from the lift below before the scaffold's integral guardrails are removed.

Below: Example of 'advanced edge protection' where guard railing is installed before the person goes up to the next level.

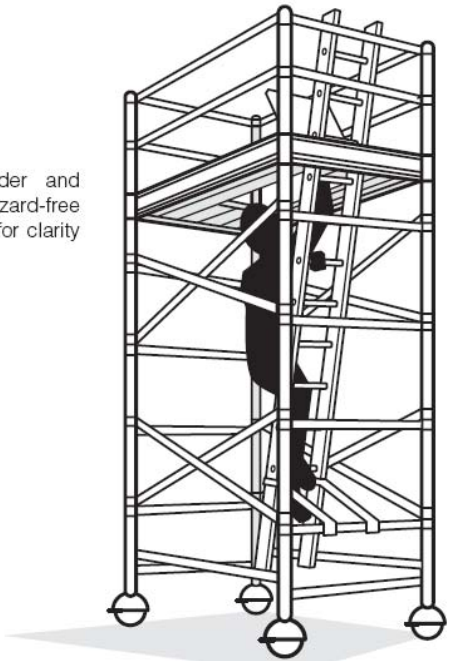


2.4 Controlling the risk of climbing falls with safe access systems

Ensuring that an appropriate access system is in place can control the risk of climbing falls for scaffolders gaining access from one lift to the next. 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.

Climbing of the scaffold framework, which exposes the climber to a risk of a fall from height, is not an acceptable access system.

Right: Mobile scaffold, access ladder and trapdoor to provide the maximum size hazard-free working platform. Toe board not shown for clarity of diagram.



2.5 Fall arrest and travel restraint systems

See AS/NZS 4576:1995 Section 9.8

Safety harnesses may be used to provide protection against a fatal or serious fall when a scaffolder is required to work over a void or lean out from the scaffold of supporting structure without the protection of a guardrail. However, safety harnesses can increase the risk of injury if used incorrectly or unnecessarily.

Safety harnesses and lanyards should comply with, be inspected in accordance with and be used in compliance with the relevant requirements of Australian/New Zealand Standard AS/NZ 1891.

Anchorage points should have a working load of not less than 1500kg and be located above or directly behind the scaffolder. Inertia reels should be used where vertical mobility is needed.

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 being disconnected from, the anchorage point.

3. Other sources of information

Occupational Safety and Health Act 1984 **and Occupational Safety and Health Regulations 1996**
Copies may be purchased from the State Law Publisher, 10 William Street, Perth. Electronic versions are available through the website at www.slp.wa.gov.au

Australian and Australian/New Zealand Standards
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 SAI Global Limited on telephone number (02) 8206 6000 or visiting website at www.saiglobal.com

Commission for Occupational Safety and Health publications
Code of Practice: Prevention of falls in workplaces

This may be purchased from WorkSafe, Westcentre, 1260 Hay Street, West Perth, telephone 1300 307 877 or downloaded from the WorkSafe website www.worksafe.wa.gov.au. Copies are also held in the WorkSafe library.

WorkSafe bulletins and publications
These may be downloaded from the WorkSafe website www.worksafe.wa.gov.au

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