

Prevention of Falls on Construction Sites

Falls from height are the most common cause of death on building and construction sites, killing 16 construction workers nationally in 2003, with an additional 6 deaths by April 2004.

Under the *Occupational Health and Safety Act 1989* (the *Act*), employers, persons in control of a workplace and self-employed persons must take all reasonably practicable steps to ensure that persons at or near the workplace are not exposed to health and safety risks. Preventing injury from falls is also a requirement under the *Scaffolding and Lifts Act 1912*.

If you engage contractors to undertake work it is important to remember that there is a shared responsibility for health and safety, and this requires close cooperation and communication regarding risks associated with the work. You cannot “contract out” your safety responsibilities for work or a workplace that you control.

Obligations under the *Act* require that you ensure: contractors have the necessary skill and experience to carry out the work you are asking them to do; they have safety systems that meet your standards; and you agree on safe work methods before the contractor starts the job.

Employees also have safety responsibilities, not to create risks to themselves or others, and to cooperate with the employers' preventative measures.

What can you do to prevent falls?

A fall from any height can result in injury. Therefore, a 3-step risk management approach should be used to identify, assess and control the risk of falls. It is also easier and more effective if protection against falls is planned at the design stage of the construction project.

Step 1: Identify the hazards

Any task that involves a fall hazard must be identified, for example:

- Working near an unprotected edge or near an open hole, excavation, trench, lift well
- Gaining access and working at an elevated level
- Working on a fragile, slippery or potentially unstable surface
- Working on a sloping surface on which it is difficult to maintain balance.

Step 2: Assess the risk

Assess the level of risk by considering the following factors:

- Height at which the task is being performed
- Type and condition of the supporting surface
- The nature of the task (eg. large tools or building materials being manually carried, welding and oxy acetylene cutting involving restricted vision can increase the risk)
- The surface below the workers (eg. pile of building materials, vertical reinforced steel, edge of a rubbish skip, unsheeted floor bearers and joists that could cause serious injury)
- New and inexperienced workers involved in the task;
- Lighting and weather conditions (eg. wind, rain)
- The duration of the task.

Step 3: Control the risk

Fall protection measures must be suited to the particular task and the severity of risk. Generally, fall protection must be provided for anyone who could fall 1.8m or more. Control measures are set out in order of the *hierarchy of controls* described below. Wherever it is practicable to do so, controls at the top of the hierarchy must be implemented before consideration is given to using lower order controls.

Eliminate the hazard

Working on the ground is the most effective method of protecting workers from fall hazards. For example:

- Pre-fabrication of wall frames and trusses
- Using tilt-up concrete construction

Substitute with a safer surface

- Work from solid construction (a level surface that is structurally capable of supporting workers, material and any other loads; has no unprotected edges or openings and allows safe access and egress).
- Use temporary work platforms such as properly erected scaffolds or elevated work platforms.

Isolate the hazard

Use physical barriers to protect workers from falls. For example:

- Install perimeter guardrail, generally consisting of a top-rail at least 900mm above the working surface, a mid-rail and a toeboard.
- Ensure that openings such as holes in floors are fenced off with secure barriers or covered over with safety mesh or timber sheeting.
- Industrial safety nets and catch platforms can be used to prevent or reduce the severity of an injury if a fall does occur.

Engineering controls

Use "work positioning" systems that will position and safely support a worker at the location where the task is to be performed (eg. travel restraint systems, industrial rope access systems and drainers' hoists). Portable ladders should only be used for short duration, light tasks such as painting a downpipe, repairing a gutter or carrying out minor electrical installations. Ladders should be industrial grade and set up correctly (refer to *Information Bulletin 04.07 - Portable Ladders* for further information).

Administrative controls

Administrative controls require a high level of training and supervision to be effective and are often supported with other fall protection measures. Examples include: warning signs, "no-go zones" and using safe work methods, such as laying floor sheets outwards from the centre of a building structure, rather than from the edge.

Personal protective equipment

Individual fall arrest systems are designed to arrest a falling person safely and their correct use relies on many factors, including the availability of properly engineered anchorage points.

For further information

For further information contact ACT WorkCover (See contact details at foot of front page).