

## WORKING SAFELY WITH SCAFFOLDING

### Introduction

In construction work many of the hazards are obvious: most of them can be found on almost every site. The causes of accidents are well known and often repeated. Falls are the largest cause of accidental death in the construction industry. Most accidents involving falls can be prevented if the right equipment has been provided and properly used.

When planning for work at heights, it is essential that you provide a safe working platform for all phases of a project. A safe working platform is usually provided by the erection of scaffolding: in the Isle of Man, much of the scaffolding is system scaffolding of a modular layout. This information document aims to highlight the top ten scaffolding concerns and provides guidance on best practice approaches to scaffolding safety. It is aimed at all those in the industry who have some control over sites where scaffolding is in use.

### What are the legal requirements on the Isle of Man?

The Isle of Man's Construction (Health and Safety) Regulations 1985 contain a large number of detailed requirements for scaffolding and scaffolders. Detailed guidance on these regulations is available from the Health and Safety at Work Inspectorate and this document does not attempt to restate those rules or to set new standards for scaffolders. Rather, it is intended to help clients, contractors and scaffolders achieve good standards of site health and safety by highlighting the main concerns and suggesting good practice solutions that may help save lives.

### Scaffolding priorities

The list that follows is based upon the Health and Safety at Work Inspectorate's observations of Isle of Man scaffolding standards. Whilst it forms the basis of a priority action list, employers are reminded that it is not a full statement of the current legislation.

#### 1. Falls from height

The fundamental purpose of a scaffold is to allow work at height to be done in safety. Every scaffold that is available for use needs to be able to prevent users falling. Guardrails, toe boards and similar barriers should be provided whenever someone could fall 2 metres or more. These should be strong and rigid enough to prevent people falling to the ground. The main guardrail must be at least 910mm above platform height. Additional guardrails may be needed where there is a risk that persons might fall between the main guardrail and the toe board or where persons might fall over the main guardrail (such as a roofer falling from the eaves). Ensuring that the gap between any guardrail and toe board is less than 470mm will significantly reduce the risks of persons falling through the edge protection. Guardrails and toe boards are also required at stop ends.

#### 2. Falling materials

Scaffolds should be constructed to ensure that materials used during construction cannot fall to the ground. Securely fitted toe boards and close boarded platforms form the basis of a

## HEALTH AND SAFETY AT WORK INSPECTORATE INFORMATION DOCUMENT: SCAFFOLDING

good approach to preventing injuries to people working below scaffolds, but unless platforms are kept totally clear of loose materials, there is a risk that materials will be stacked above the height of the toe boards. In these cases, the safety of people on the ground can be improved by providing barriers such as brick guards or barrier netting. You should note that barrier netting alone is not suitable for use as a fall prevention device. Debris chutes should be used when removing rubbish into a skip, you should cover the skip to stop flying debris and cut down dust. A bucket and gin wheel or similar device forms a safe way of lowering smaller amounts of debris. Make sure that people are kept out of the way of such operations. Throwing items to the ground is unacceptable.

### 3. Working platforms

Working platforms should be wide enough to allow people to pass safely and use any equipment or material necessary for their work. As a minimum, they must be at least 600mm wide and free of openings or traps which could cause a tripping or falling accident. Timber scaffold boards should meet the standards imposed by the relevant British Standard (BS2482), be in good condition and be fitted with boarding.

### 4. Ladders

Any ladder used in conjunction with scaffolding must be in good condition, of sufficient strength and securely located. The top of the ladder should extend at least 1m above the platform level unless alternative safe handholds are provided. Users of ladders are advised to ensure that any ladders provided are of a suitable standard: domestic access ladders have been known to collapse when used in construction work. Heavy or bulky loads should not be carried up and down ladders: a gin wheel or some form of lifting equipment should be used instead. Makeshift, home made or repaired ladders must never be used. Make sure that any ladder that cannot be safely used is destroyed.

### 5. Stability

In the worst case, a scaffold collapse can involve multiple fatalities: at best, it is likely to cause significant disruption. All scaffolds must be based on a firm level foundation capable of supporting the weight of the scaffold and the loads likely to be placed on it. With system scaffolds, it is especially important to ensure that the first lift is properly levelled and located. Base plates are always required at standards and additional boarding will be necessary on weak ground. All scaffolds need to be braced and tied into a permanent structure, or otherwise adequately stabilised. Ties should be put in place as the scaffold is erected and only removed in stages as the scaffold is struck. If a tie has to be removed to allow work to proceed, an equivalent tie should be placed nearby to maintain stability. Rakers only provide stability when they are braced and footed properly. Ledger and longitudinal bracing should be installed according to the manufacturer's rules. Scaffolders will need to be informed of any intention to provide sheeting or for expected concentrated loads and will also need to consider wind loadings when considering the stability of a scaffold being installed.

### 6. Loading platforms

Scaffolds are not usually designed to support heavy loads on their working platforms. If there is any intention to load out platforms, the scaffolder must be informed in advance. Where concentrated loads are expected, a loading tower structure or heavy-duty scaffold may be required. Any handrails removed to allow loading by lift truck should be promptly replaced.

## HEALTH AND SAFETY AT WORK INSPECTORATE INFORMATION DOCUMENT: SCAFFOLDING

### 7. **Mind the gap**

Working platforms should be no further than 300mm away from the building or structure.

Where a building involves a cantilevered or curved elements, it can be difficult to keep within the 300mm limit if system scaffolding is used. Whilst a competent scaffolder can make detailed adjustments on site, in the most difficult cases it may be more appropriate to use tube and fitting scaffold types.

### 8. **Protecting the public**

Great care is needed when scaffold is erected above a public thoroughfare. In particular, effective steps need to be taken to ensure that nothing can fall onto people below. As well as brick guards and high visibility netting, you will need to consider providing nets, fans or covered walkways to give extra protection. If the platform above a covered walkway is a working platform, then a double-boarded platform sandwiching a polythene sheet may be needed.

### 9. **Scaffold erection**

Any scaffold must be designed, erected, altered and dismantled by competent people under the direction of a competent supervisor. Scaffolders should always adopt methods of working to prevent them falling during scaffolding work. Scaffolding should never be erected over people or busy pavements. If there is a risk to the public, scaffolding work should be scheduled for quiet times or a highway closure obtained. Under no circumstances should unauthorised modifications to scaffold be tolerated. If additional components are needed on site, send out for them: robbing a scaffold of components can be fatal.

### 10. **Keeping a check**

To ensure that scaffolds are properly maintained at all times, a competent persons should inspect the scaffold at least once a week. Any faults found should be put right immediately. If this is not possible, the scaffold should be identified as being unsafe and taken out of use. Records of these checks should be kept on site. If there is no-one on site who is able to inspect the scaffolding on a regular basis, an arrangement with the scaffold erector should be considered. In addition to these regular checks, it is important that any scaffold is examined after it has been altered, damaged or subjected to extreme weather conditions.

### **Further Guidance**

There is a large range of guidance available on scaffolding safety. The publications of the Construction Industry Training Board and Health and Safety Executive in the UK are recommended. Further guidance on Isle of Man health and safety legislation and advice on good site practice is available from the Health and Safety at Work Inspectorate, 23 Athol Street, Douglas, tel: 685952 and e-mail [WorkSafe@dlge.gov.im](mailto:WorkSafe@dlge.gov.im).

The information in this document is current as at April 2002 and has been prepared by the Health and Safety at Work Inspectorate. This document does not replace any other Health and Safety at Work Inspectorate guidance or affect any existing enforcement procedures: it contains advice for best practice and does not necessarily reflect minimum legislative requirements. Copies of this document are available in electronic format from the Inspectorate.