

Enforcement Note No 8

Erection and Dismantling of Scaffolding

Background

A number of issues have been raised about the scaffolding requirements in Part 18 of the Workplace Health and Safety Regulation 1997 (2002 amendments) by inspectors and industry parties. Most of the issues raised relate to the fact that under the new requirements risk control measures will be required for persons erecting scaffolding where they can fall 3 metres or more for housing construction work and 2.4 metres or more for other construction work.

In a practical sense, to comply with the Regulation all perimeter and birdcage scaffolding should be erected with a full deck of planks every 2nd lift, as a minimum. It should also be noted that a full set of planks at every 2nd lift is based on the presumption that the scaffolder installs the planks from under the deck, while standing on two planks.

Employers and self-employed persons who perform, or direct workers to perform, any high-risk construction activity (eg where a person could fall 2.4 metres/3 metres), are required to prepare a work method statement for the activity. The employer must ensure that his/her workers follow the work method and the employer must monitor the workers to ensure they follow the work method.

Erectors of scaffolding have three options to manage the risk of workers falling while erecting or dismantling scaffolding. These are:

- a) To prevent the person falling by a control measure
- b) To arrest the person's fall by using a fall arrest harness system
- c) To follow the stated way in the regulation

Recommended Enforcement Action

When an employer elects to use fall arrest equipment

The use of a fall arrest harness system for the erection and dismantling of scaffolding is permitted under Section 197(2)(a)(ii) and Section 198(2)(a)(ii) respectively. However, it must be noted that section 188 of the Regulation also places a number of conditions on the use of fall arrest systems. One of the conditions is that a fall arrest system cannot be used if it is possible for the user to hit an object prior to the fall being arrested [section 188(7)]. In view of this, fall arrest systems should not be used in the erection or dismantling of perimeter and birdcage type scaffolding. Diagram 1 illustrates how a worker could receive injuries when using fall arrest equipment. The only situations in which the use of fall arrest systems would be an acceptable control method when erecting or dismantling scaffolding is for:

1. 'Drop' or "hung" scaffolding where the scaffolding is constructed from top to bottom (there is nothing for the scaffolder to strike below in the event of a fall – see diagram 2).
2. Cantilevered needles and decking between those needles for scaffolding to be erected on the needles. The use of fall arrest system could also be used during the erection of the first lift of scaffolding where scaffolders are standing on the deck between the needles.
3. The attachment and removal of spurs projecting from the supporting scaffolding or supporting structure.
4. The fixing and removal of trolley tracks on suspension rigs (a trolley track is a suspended rail that supports and guides trolleys for swingstages, bosuns chairs, etc).

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In addition to the striking hazard, the use of fall arrest systems is generally not suited to the erection of scaffolding due to the issues of high anchorage point loading (15 kN), the need to continuously hook on and off, and the risk of fall arrest lines becoming trip hazards.

Action: A Prohibition Notice is to be issued to the employer to stop the activity of using a fall arrest system where it is possible to hit an object prior to the fall being arrested. This would apply to the erection and dismantling of all types of scaffolding except the activities listed in points (1) to (4) above. Section 188(7) should be referred to on the notice.

When an employer elects to follow the stated way in section 197(3) or 198(2)(b)

Accessing platforms on scaffolding

The Regulation will require a stair or ladder access system to be progressively constructed as the scaffold is erected. Section 197(3)(a)(ii) requires ‘a means of access to the level the scaffolding has reached’ and mentions “temporary stairs or a ladder” as two examples of a means of access. In some situations access could also be obtained from the floor level of a building under construction, provided such access is safe.

Scaffolders should not climb standards externally. It is acknowledged that in limited situations a scaffolder may need to climb an inside standard internally where a potential fall of less than 2.4 metres (or less than 3 metres for housing) could be experienced. While the Regulation does not explicitly prohibit the climbing of standards, employers should ensure the risks are identified and addressed in a risk assessment for the activity.

Action: Prohibition Notice issued to the employer¹ on erecting scaffolding without the provision of a proper means of access to the level the scaffolding has reached. The examples of ladders, stairs or access from the building as acceptable means of access could be listed on the notice. The relevant provision of section 197 or 198 is to be referred to on the notice.

Provision of edge protection during erection

In a practical sense, edge protection will need to be installed on perimeter and birdcage scaffolding² where the potential fall distance is greater than 3 metres for housing construction work and 2.4 metres for other work. However, to install the ledger between standards the scaffolder is required to stand on the scaffold deck and may not be protected prior to the installation of the ledger. Section 197(3) indicates that the edge protection does not need to be installed until “enough components of the scaffolding have been erected to support” it. In other words, the scaffolder installing the edge protection does not have to be provided with fall protection – otherwise it would be impractical to erect the scaffolding. When dismantling the scaffolding section 198(2)(b)(i) states “any edge protection for the scaffolding and any means of access to the level that the dismantling has reached are kept in place while it is practicable to do so”. Therefore, the scaffolder is permitted to remove the edge protection as the scaffolding is dismantled, providing this is done at the last possible stage.

Action: Where the edge protection is being progressively installed as soon as enough components have been erected to install it, or progressively removed as the scaffolding is dismantled – no action required. Where it is obvious that the edge protection is not being progressively installed as the scaffolding is erected – Prohibition Notice to the employer on the activity of erecting the scaffolding with reference to section 197(2)(b) in the notice.

Notes

¹ The prohibition notice is to be issued to the person in control of the activity. This means it could be issued to the scaffolder (a worker) if the employer is not present

² For reasons already discussed - fall arrest systems may be used for work specified in points (1) to (4) specified on the previous page.

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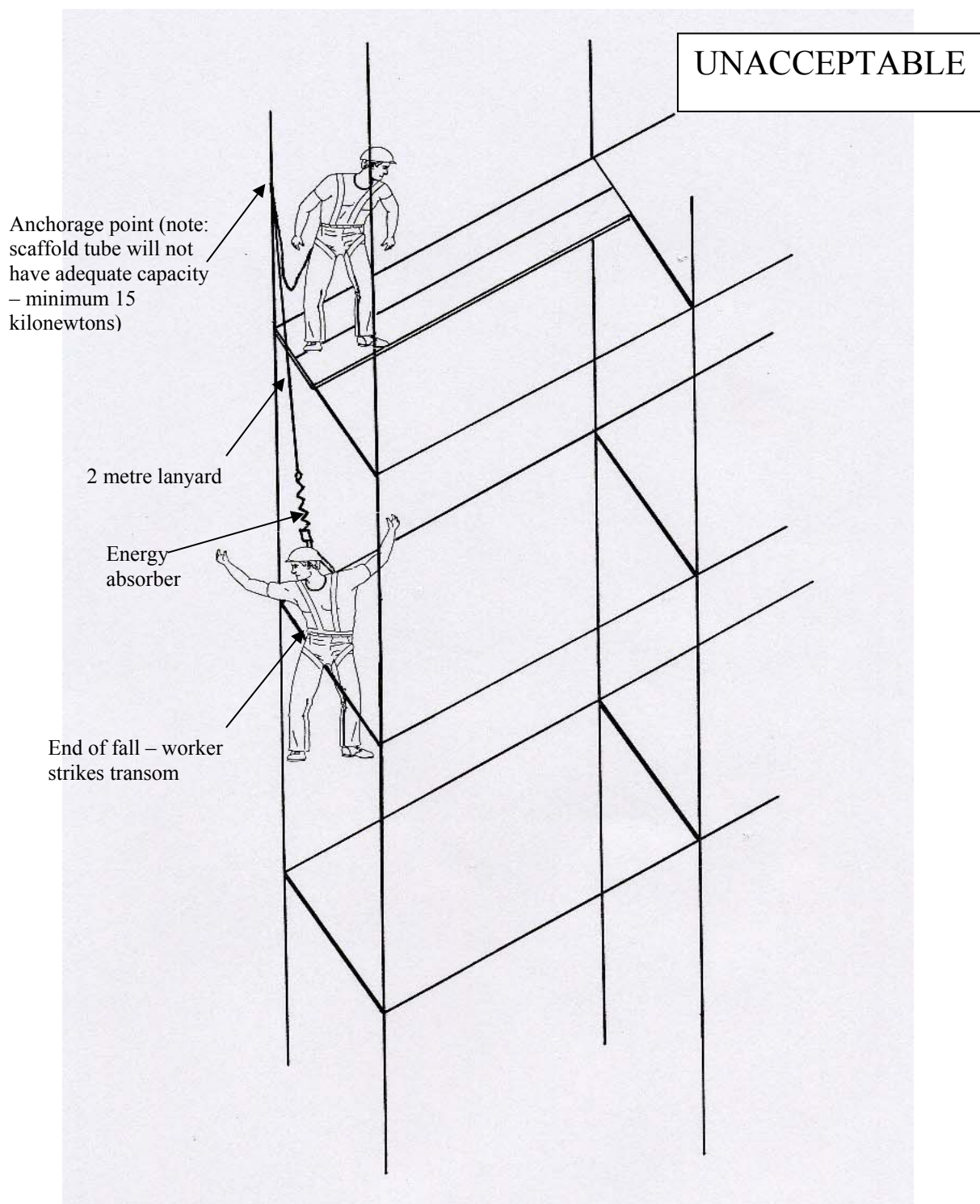


Diagram 1: Independent perimeter scaffolding. Fall arrest equipment should not be used.

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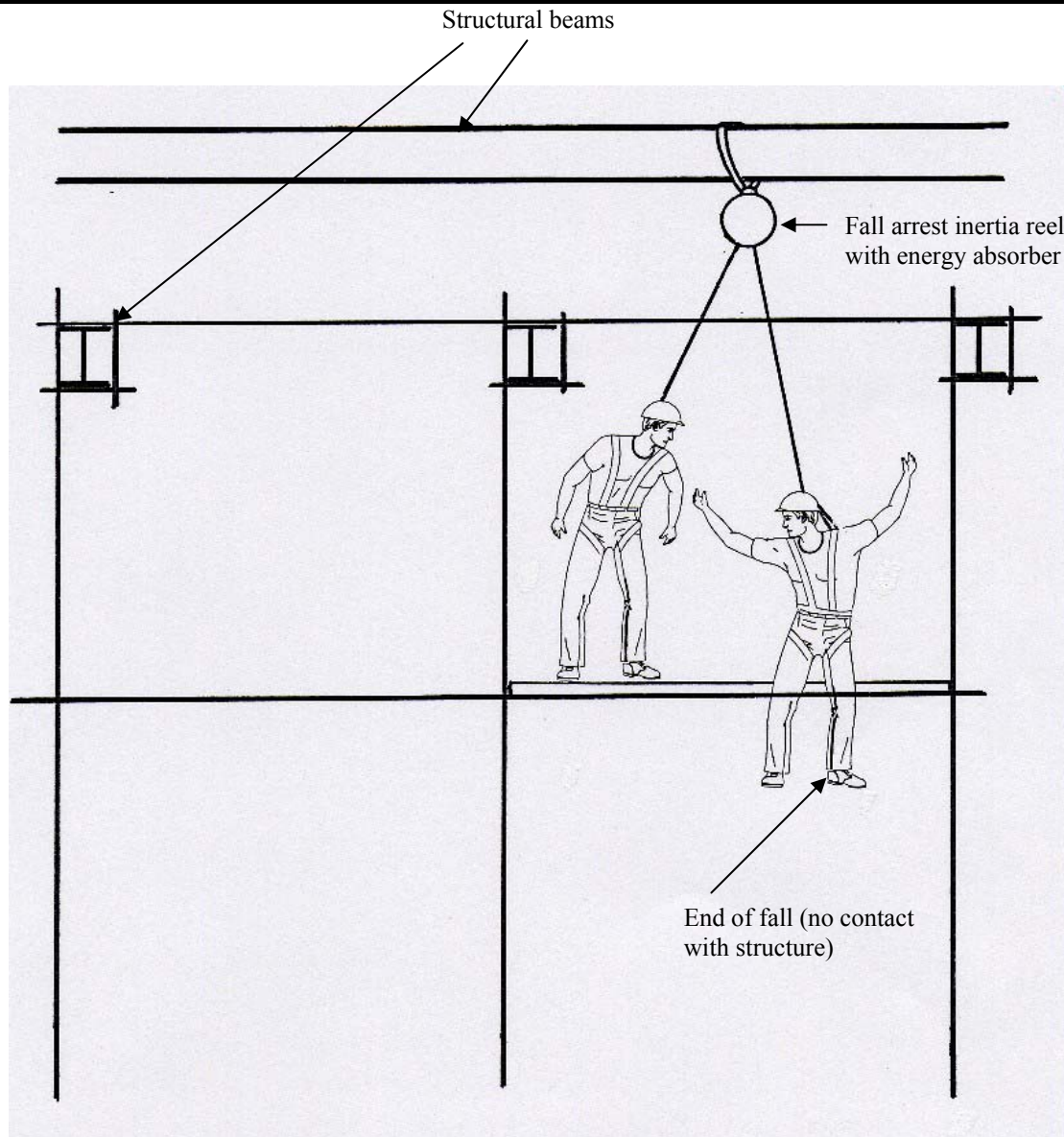


Diagram 2: Hung scaffolding – use of fall arrest equipment satisfactory.