

Guidelines

1. Introduction

Falls from height are the single biggest cause of workplace deaths and one of the main causes of major injury across all sectors of industry and commerce. In 2005, the Work at Height Regulations (WAHR) were introduced to consolidate existing legislation on working at height and to implement the requirements of European Council Directive (2001/45/EC). The Regulations were amended in 2007 to include organised climbing and caving activities led by paid instructors.

This Guidance describes the general principles which apply to work at height, and the **information here will be of relevance and interest to managers, supervisors, those in charge of premises, Designers** (in the context of the CDM Regulations) **and employees**. Some typical work areas where WAHR may apply include:

- Construction Work
- Fixed Plant, vehicle and buildings maintenance
- Access and carrying out roof inspections
- Work on or near fragile surfaces through which a person could fall
- Decoration
- Excavations (including trench work and grave digging)
- Work in or near pits, sewers, ducts or empty swimming pools
- Loading and unloading of vehicles & trailers
- Using and working from ladders and stepladders
- Rope access work, including organised caving or climbing 'leisure' activities involving paid instructors or leaders

2. Purpose

This document is written for managers, supervisors, Designers and employees who authorise, specify, oversee or carry out work at height, and provides guidance and information in summary form on what you need to do to comply with the Work at Height Regulations 2005.

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3. Scope

The Work at Height Regulations (and this guidance document) **apply to all work where there is a risk of a fall** (including falling objects) **liable to cause personal injury**. This includes work undertaken by Fife Council employees and work done on our behalf by other consultants, contractors and maintenance personnel.

The Regulations place duties on any person who controls the work of others (e.g. Occupiers and those in control of premises who may instruct others to work at height) to the extent they control the work.

This document cannot provide detailed guidance to cover the entire wider range of work activities we carry out across Fife Council involving work at height.

The Work at Height Regulations include detailed provisions and very specific requirements for (e.g.) scaffold assemblies and working platforms, rope access systems, etc.; and this Guidance document does not discuss that level of detail. *(Please refer to the "further reading" section at the end of this document.)*

Where the work at height is of a complex*, demanding, high risk or unusual nature then you should not rely solely on the information in this Guidance Document. In cases of doubt, contact your Supervisor/Manager, your Service Health & Safety Co-ordinator or the Council's Occupational Health and Safety Team for further advice.

[examples of complex work at height include roof maintenance works, pool-side maintenance, trench work and excavations]*

4. Definitions

“Work at height” is legally defined as —

"Work in any place, including a place at or below ground level; including getting to or from such a place while at work (except by a staircase in a permanent workplace) where, if measures required by the Work at Height Regulations were not taken, a person could fall a distance liable to cause personal injury."

“fragile surface” means a surface which would be liable to fail if any reasonably foreseeable loading were to be applied to it.

“competency / competent person” a person having suitable and sufficient training, knowledge, experience, understanding, authority, maturity and capability to undertake a task or activity safely.

“Duty Holder” in the context of the Work at Height Regulations, means any person who controls the work of others at height *(e.g. Occupiers, those with responsibilities for property maintenance who may instruct others to work at height, and Designers who may specify or recommend a particular method to control the risks arising from work carried out at height)* to the extent they control the work.

5. Guidance

IMPORTANT NOTE:

Prior to the issue of the Work at Height Regulations in 2005, older legislation, guidance and information made reference to a “2 metre rule”, whereby precautions only had to be considered where a person could fall 2 metres or more. It is now recognized that a significant proportion of deaths and most reported major injuries arising from work at height involve falls from less than 2 metres.

The “2 metre rule” no longer applies.

5.1 To whom do the Regulations apply?

Managers, Supervisors, those who instruct, commission, specify or authorise work at height, designers and those in charge of premises, are all considered as DUTY HOLDERS (only to the extent they control the work or the way it is to be done).

In all instances, in order to ensure compliance with the Work at Height Regulations 2005,

- managers
- supervisors
- designers (**see also section 5.6 below**)
- those in charge of premises and
- others who instruct or otherwise authorise others to work at height,

must, **only to the extent they control the work or the way it is to be done**, ensure that all activities involving work at height are identified and effectively managed so as to ensure Safe Systems of Work

Detailed requirements for duty holders are described at **5.1.1 – 5.1.10** below.

The Regulations also impose **duties on employees**, although these are already established in general terms within Fife Council's overarching Health & Safety Policy Statement – see Section **5.3** below.

5.1.1 Duty Holders' responsibilities: overriding principle & hierarchy

The overriding principle of the Work at Height Regulations:

You must do all that is reasonably practicable to prevent anyone falling.

The Hierarchy of Control

The Work at Height Regulations set out a simple hierarchy which must be followed for managing and selecting equipment for work at height. See Figure 1 overleaf.

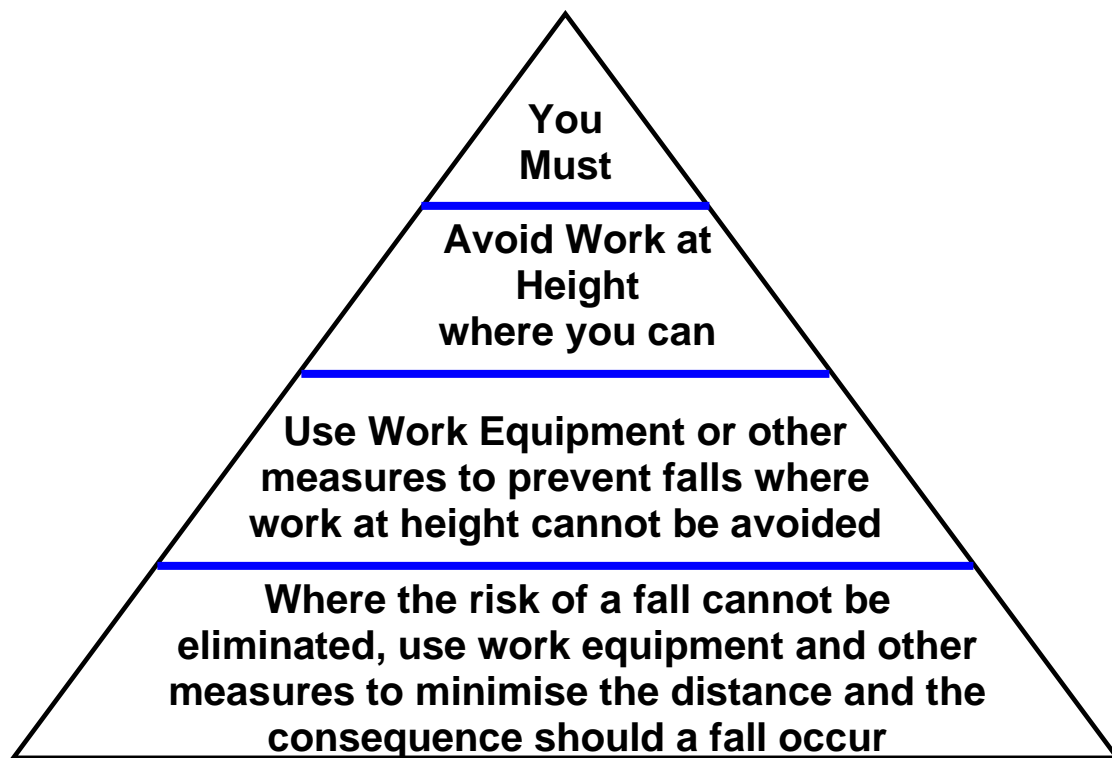


Figure 1. “The Hierarchy of Control”

5.1.2 Planning You must:

- ensure that no work is done at height if it is safe and reasonably practicable to do it other than at height;
- ensure that the work is properly planned, appropriately supervised, and carried out in as safe a way as is reasonably practicable;
- plan for emergencies and rescue;
- take account of and act on the findings of the risk assessment applicable to the task, activity or process;
- follow the hierarchy at 5.1.1 above.

5.1.3. Weather

You must ensure that the work is postponed when weather conditions endanger health or safety.

n.b. this does not apply to the emergency services when acting in an emergency.

5.1.4. Competency and Training

- You must ensure that everyone involved in the work is competent, or supervised by a competent person. Competency requirements extend to

those involved in work organisation, design, planning and supervision, and the selection, use and maintenance of equipment.

- Duty Holder responsibilities for those commissioning contractors to work at height extend to taking reasonable steps to ensure the competency of these third parties (i.e. contractors and service providers).
- Where other precautions do not entirely eliminate the risk of a fall occurring, you must (as far as it is reasonably practicable to do so) train those who will be working at height how to avoid falling (e.g. safe use of ladders), and (in certain higher risk activities for example) how to avoid or minimise injury should they fall.
- Training extends to the particular requirements of rescue and First Aid, including “suspension trauma” arising due to suspension in a body harness.

5.1.5. The place where work is done at height

Wherever reasonably practicable, you must ensure that the place where work is done at height is safe and has permanent features to prevent a fall.

Typical permanent features preventing falls include:

- Barrier systems or parapets on flat roofs, whether installed as an original feature, or a retrospectively installed edge protection system. Note that parapets on existing buildings must be a minimum of 910mm high to be considered compliant, and 950mm on buildings constructed or substantially modified after April 2005), or;
- Adequately-lit designated access points and properly boarded and guarded walkways in fragile roof valleys and gutters, loft spaces or gantry-ways over voids or fragile ceilings where engineers may require frequent access to service or maintain fixed plant, lighting rigs, flues or extraction ducts.

5.1.6. Use of Equipment, temporary structures, and other safety features

Where it is not reasonably practicable to prevent falls in accordance with 5.1.5 above, you must provide other arrangements for preventing (as far as is reasonably practicable) a fall occurring. For example, the erection of a temporary scaffold structure around a low-rise flat roofed building can offer the same level of protection to workers as a permanent edge-protection system, whilst allowing unrestricted access to the roof material itself.

Where the precautions taken do not entirely eliminate the risk of a fall occurring, you must do all that is reasonably practicable to minimise the distance and effect of a fall. For example, a scaffold erected around a sloped roof that incorporates a platform and appropriate guard rails at the eaves will arrest the fall of a roof

worker who may slip or tumble down the roof slope during a roof replacement project. Thus the distance and the effects of the fall are minimised in a practical way.

In summary, when selecting equipment to protect those working at height from the effect of a fall you must:

- use the most suitable equipment
- **give priority to collective protection measures** (e.g. guard rails) over personal protection measures (e.g. safety harnesses)
- take account of the working conditions; and the risks to the safety of all those at the place where the work equipment is to be used (including contractors, members of the public, building occupants, etc.)

5.1.7 Inspections

‘Inspection’ is defined by WAHR as ‘such visual or more rigorous inspection by a competent person as is appropriate for safety purposes ... (including) any testing appropriate for those purposes’.

- Whilst this Guidance does not extend to a detailed discussion of the inspection requirements for scaffolds, work platforms, mechanised access plant, leaning ladders and step-ladders, etc.; managers (and particularly those in charge of, or designated as the “occupier” of, Fife Council workplaces) are reminded that certain permanently installed features on buildings will require regular inspection in accordance with the above definition. Managers and “occupiers of premises” should request and receive adequate evidence from Property Services (including validated copies of inspection and test certificates where appropriate), and should satisfy themselves that an adequate test and inspection regime is in place, for all relevant equipment permanently installed at premises they have responsibility for.

Equipment typically requiring regular test/inspection will include:

- safety anchor points in facades,
 - edge protection systems,
 - suspended access equipment, running anchor lines on sloping roofs, permanently installed vertical ladder systems, etc.
- Duty Holders must also further ensure (to the extent that they control the work) that each individual place at which work is to be done at height is checked on every occasion before that place is used. For a simple task, this might involve checking that the surface on which a ladder is to be placed is level and free from obstructions, slip, trip & collision hazards, etc.

On more complex jobs (e.g. roof work) this might involve daily visual examination of a temporary working platform or scaffold.

5.1.8. Fragile surfaces

- Duty Holders must ensure that no one working under their control can come into contact with a fragile surface at height unless that is the only reasonably practicable way for the worker to carry out the work safely. *[Examples include the dismantling of an asbestos cement roof, or investigation or repair of a leaking skylight.]*

Where it is decided that persons have to work on or near a fragile surface, duty holders must:

- ensure (as far as it is reasonably practicable to do so) that suitable platforms, coverings, guard rails, and the like are provided (and used) to minimise the risk;
 - do all that is reasonably practicable, if any risk of a fall remains, to minimise the distance and effect of a fall (by use of specialist airbags or cushion systems, nets, etc.)
 - protect others (those below) from falling objects, debris, etc. see 5.1.9 & 5.1.10 below.
- Duty Holders who are a nominated person in charge of premises ('the occupier') must ensure that prominent warning notices are maintained at the approaches to any danger zone(s) where persons may contact or approach fragile roof materials or components. (e.g. warning notices at roof access doors, below eaves of fragile roofs, etc.)
 - In this respect, duty holders should satisfy themselves that they are aware of all and any such fragile surfaces within premises they (a) have responsibility for, or (b) commission or instruct others to work on or near.

Fragile surfaces must not be painted, over-clad with further fragile materials or otherwise modified so as to obscure the fragile nature of the surface(s)

5.1.9. Falling objects

- Where it is necessary to prevent injury, you must do all that is reasonably practicable to prevent anything falling.
- If it is not reasonably practicable to prevent objects falling, you must ensure that no one is injured by anything falling. Prompt arrest of falling objects can be achieved by use of tool-lanyards, netting or other physical barriers. You

should also ensure that the area below (taking into account the horizontal distance falling objects may travel) is properly and effectively segregated.

- You must ensure that nothing is:
 - thrown from height
 - tipped from height if it is likely to injure anyone (use enclosed chute systems as a preference);
 - stored at height in such a way that its movement is likely to injure anyone (consider the strength and stability of the structure used to store materials and also the effects of wind loadings on lightweight or sheet materials).

5.1.10. Protecting others

Wherever a risk remains of:

- (a) Someone falling a distance and being injured, or
- (b) being struck by a falling object or person,

Duty Holders must ensure that the area is clearly identified (i.e. conspicuously marked and signposted) and that (as far as is reasonably practicable) unauthorised people are unable to reach it.

- At excavations, trenches, floor openings and the like, secure covers and effective segregation using barriers and/or fencing around the work area will usually be required. Risk to the general public and building occupants is a key consideration.

5.2 Other Rooftop Hazards

Those organising and those carrying out work on rooftops are reminded that a range of other hazards may need to be taken into consideration, including some which may be hidden or not immediately obvious, e.g.: proximity to overhead power lines, high power phone masts and communications transmitters, automatic roof-mounted machinery which may start without warning, roosting & nesting birds (which may take flight suddenly or act aggressively) and slip hazards (e.g. frost, spills, standing water or bird droppings). Wind speeds will also be greater and the wind direction may change unpredictably at greater heights. Prevent lightweight and sheet materials becoming airborne. "Permit to Work" systems will be required in certain circumstances.

5.3 Duties of employees. In accordance with Fife Council's general Health & Safety Policy, employees must:

- Report any safety concern promptly;
- Use work equipment provided (including safety devices) properly and in a safe manner, and only in accordance with instruction and training;
- Follow instructions & information provided (including warning signs and signals);
- Seek further guidance and instruction in any situation where they are unsure.

5.4 Leaning ladders and stepladders

Fife Council Occupational Health and Safety Team consider that the current freely available Health and Safety Executive publication IND (G) 402 (see Section 6.3) contains sufficient guidance to allow Services and business units to develop safe systems of work involving the use of leaning ladders and stepladders. IND (G) 402 contains a wealth of useful guidance on areas including:

- When it is appropriate to use a ladder;
- how to go about selecting the right sort of ladder for the particular job;
- understand how to use ladders properly;
- how to look after ladders; and
- taking sensible safety precautions.

Duty holders are reminded that ladder users must be competent - users should be trained and instructed to use the equipment safely.

Remember too that leaning ladders & stepladders are "work equipment" and that such items should be maintained on your local equipment inventory and formally inspected at regular intervals by competent persons.

Should you have any further queries on the selection, use, maintenance or training in the use of such work equipment, please contact the Corporate Health and Safety Team through First Contact Health and Safety enquiries.

5.5 Duties of Designers

Designers, in considering their duty to comply with the Construction (Design & Management) Regulations, must take into account the overriding principles and the WAHR hierarchy described above, where the construction phase of the Project, or any future use, cleaning or maintenance activities will involve *work at height*.

When designing new or modified structures or installations, the risks to those who will build, maintain, clean, use and demolish them should be taken into account. Some areas to consider include:

- Means of preventing falls, or where this is not reasonably practicable,
- mitigating the effects of falls and falling objects,
- the avoidance of specifying fragile materials
- replacing fragile with non-fragile roof lights or surfaces
- designing or specifying structural steel work with integral fixings for fall arrest netting.

Designers and Fragile Surfaces

Designers shall take account of the following principles when considering the risks arising from fragile surfaces. (OHS-C-016.G2 also refers – see Section 6.9)

- Specify non-fragile surfaces in your designs wherever practicable. In refurbishment Projects, include the replacement of fragile elements (e.g. skylights, domes etc.) with non-fragile equivalents. (see references at Section 6.10 & 6.11 below).
- Ensure that fragile surfaces on, or in the vicinity of, the proposed work are identified and made known to contractors, e.g. via Project Drawings. Also consider the general deterioration of the roof and roof elements due to ageing, corrosion, thermal damage, rain and storm water damage, neglect or lack of maintenance. *A survey of the roof structure may be required.*
- Ensure that adequate arrangements can be made to prevent people approaching or falling through fragile areas or openings (e.g. by using temporary barriers or over-covers), and to protect others below who may be at risk from falling objects or materials.
- Include provision of suitable safety signage at relevant access points to areas at height that include fragile surfaces (where such signage is not already in place).
- Avoid specifying or permitting painting or over-cladding with other lightweight materials and so obscuring the fragile nature of the surface.
- Wherever practicable, ensure your design incorporates features which will readily allow for the control of 'work at height' risks, for example, by including edge protection as a permanent feature.
- Ensure (in conjunction with other duty holders) that residual risks from fragile surfaces are suitably highlighted in the Health & Safety File for the Structure (including AMIS data entry as applicable).

Further information for Designers is available from the Construction Skills document (See Section 6. 7), the Advisory Committee for Roofwork Best Practice Guides (See Section 6.10 & 6.11) and OHS-C-016.G2 (See Section 6.9 below).

6.0 References and further reading:

1. *The Work at Height Regulations 2005 (as amended): A brief guide* Leaflet INDG401(rev1) HSE Books 2007 (single copy free or priced packs of 10 ISBN 978 0 7176 6231 9) .Currently available as a free download from the HSE website
2. *The Work at Height Regulations 2005* SI 2005/735 The Stationery Office 2005 as amended by the Work at Height (Amendment) Regulations 2007 SI 2007/114
3. "Safe use of ladders and stepladders - an employers' guide" INDG402 (2005) This leaflet is available in priced packs of 5 from HSE Books, ISBN 978 0 7176 6105 3. Single free copies are also available from HSE Books. Currently available as a free download from the HSE website
4. *A toolbox talk on leaning ladder and stepladder safety* Leaflet INDG403 HSE Books 2005 (single copy free or priced packs of 5 ISBN 978 0 7176 6106 0)
5. *Top tips for ladder and stepladder safety* Pocket card INDG405 HSE Books 2005 (single copy free or priced packs of 25 ISBN 978 0 7176 6127 5)
6. *The Construction (Design and Management) Regulations 2007* SI 2005/320 The Stationery Office 2007
7. The Construction (Design and Management) Regulations 2007 Industry Guidance for Designers CDM07/4.
8. Fife Council Corporate Procedure and Guidance on Risk Assessment ref OHS-C-012 & OHS-C-12.G1
9. Corporate Standards & Guidance Document OHS-C-016.G2 Application of the Construction (Design & Management) Regulations (CDM) 2007 to: Designers - Duty Holder Roles and Responsibilities
10. ADVISORY COMMITTEE FOR ROOFWORK: Best Practice Guide ACR [CP] 002:2005 Guidance Note for Safe Working on Fragile Roofs Covering the Designing, Planning and carrying out of Inspection, Maintenance, Repair and Refurbishment Work.
11. ADVISORY COMMITTEE FOR ROOFWORK: Materials Standard ACR[M]001:2005 Test For Non-Fragility of Profiled Sheeted Roofing Assemblies [third edition]