

Local Rule: Work at Height

1. Significant Hazards

Falls from height are one of the biggest causes of workplace fatalities and major injuries. Common causes are falls from ladders and through fragile roofs.

Objects falling onto people below, are responsible for many serious and fatal injuries every year. These may occur due to inadequate edge protection, or stored objects being poorly secured. If a person falls from a height above two metres the likelihood is that they will sustain serious injury.

Workers in maintenance and construction could be at risk of falling from height in the course of their work. However, many other people in a variety of jobs could also be at risk.

Some work at height examples within the University include:

- · Accessing shelving above head height;
- · Cleaning high level areas;
- Repairing pipework at ceiling level or in a service duct;
- Maintaining equipment where the drive mechanism is at high level;
- · Accessing services or experimental equipment on a roof;
- · Work on, or near, an unprotected or fragile surface, roof or skylight;
- Maintaining raised garden areas or steep embankments;
- Loading or off-loading a vehicle or trailer:
- Working on a ladder or a flat roof;
- Where a worker could fall into an opening in a floor or a hole in the ground.

The University aims to manage all work at height activities by fulfilling the requirements of the **Work at Height Regulations 2005** (WAHR); the first duty being to avoid work at height, if reasonably practicable.

2. Key Definitions

WAHR - Work at Height Regulations

Work at height – Work in any place where, if there were no precautions in place, a person could fall a distance liable to cause personal injury.

A place is 'at height' (unless measures required by the Regulations are followed) if there is a risk of a fall liable to cause personal injury, even if it is at or below ground level. You are working at height if you:

- Work above ground / floor level;
- · Could fall from an edge, through an opening or fragile surface; or
- Could fall from ground level into an opening in a floor or a hole in the ground.

Work at height does not include a slip or a trip on the level, as a fall from height has to involve a fall from one level to a lower level, nor does it include walking up and down a permanent staircase in a building.

Working platform – means any platform used as a place of work or as a means of access to or egress from a place of work; it includes any scaffold, cradle, mobile platform, trestle, gangway, gantry and stairway which is to be used.

Personal fall protection system - means

- **a)** A fall prevention, work restraint, work positioning, fall arrest or rescue system, other than a system in which the only safeguards are collective safeguards; or
- b) Rope access and positioning techniques.

Ladder – means a fixed ladder (secured in place) and an unfixed ladder including:

- Leaning ladders Refer to Appendix 8;
- Telescopic ladders Refer to Appendix 9;
- Stepladders Refer to Appendix 10;
- Combination and multi-purpose ladders Refer to Appendix 11.

Fragile surface – means a surface which would be liable to fail if any reasonably foreseeable loading were to be applied to it.

Inspection – a visual inspection, or more rigorous inspection by a competent person. Refer to **Appendix** 12.

Ladder product standards - portable steps and ladders should be to EN131 standard. While BS2037 and BS1129 have been withdrawn, ladders originally made to these standards prior to their withdrawal may still be used (subject to following user instructions and guidance on safe use).

3. Roles and Responsibilities under WAHR

3.1 Employers

Employers and those in control of any work at height activity must ensure:

- · All work at height is properly planned and organised;
- Those involved in work at height are competent;
- The risks from work at height are assessed, and appropriate work equipment is selected and used;
- The risks of working on or near fragile surfaces are properly managed;
- The equipment used for work at height is properly inspected and maintained.

Employers must consult your employees (either directly or via safety representatives), in good time, on health and safety matters. Issues you must consult employees on include:

- · Risks arising from their work;
- · Proposals to manage and/or control these risks;
- The best ways of providing information and training.

3.2 Nominated Co-ordinator

The following are the advised duties of the person nominated to co-ordinate work at height:

- · Liaising with colleagues to identify work at height activities and locations;
- Ensuring that risks are assessed for each work at height activity;
- Ensuring that safe systems of work are provided, where appropriate;
- Ensuring that appropriate access equipment is provided and maintained;
- Ensuring that appropriate information, instruction, supervision are provided in relation to work at height;
- Advising colleagues on training needs and making the necessary arrangements to allow such training to be provided.

3.3 Employees

Employees who work at height must:

- Report any safety hazard they identify to the person in control of the hazard; and
- Use the equipment supplied (including safety devices) properly, in accordance with any training and instructions, unless they think that would be unsafe, in which case they should seek further instructions before continuing.

4. Determining Competence for Work at Height

4.1 Task

Make sure that people with sufficient skills, knowledge and experience perform the task, or, if they are being trained, that they work under the supervision of somebody competent to do the task.:

- Are provided with sufficient information, instruction and knowledge; and
- They work under the supervision of somebody competent to do the task, until they are deemed competent.

4.2 Low-risk and Short Duration Tasks

In the case of low-risk, short duration tasks (short duration means tasks that take less than 30 minutes) involving ladders, competence requirements may be no more than making sure employees receive instruction on how to use the equipment safely (e.g. how to tie a ladder properly) and appropriate training.

Training for low-risk and short duration tasks often takes place on the job, and does not always have to be undertaken formally in a classroom or via online training.

4.3 Higher-risk and Longer Duration Tasks

When a more technical level of competence is required, for example drawing up a plan for assembling a complex scaffold, existing training and certification schemes drawn up by trade associations and industry is one way to help demonstrate competence.

5. Assessing Risks from Work at Height

Departments are required to take positive action to address the issues relating to work at height, as outlined below.

5.1 Identifying all Work at Height

Departments should produce a list of work activities and locations that come, or could potentially come within the category of 'work at height'. Often, this can best be achieved by managers and supervisors pooling their knowledge of the work activities within the department. Where appropriate, consultation should be held with staff to confirm all 'work at height' activities have been identified.

5.2 Evaluating the Risks

It is a legal requirement that departments make a suitable and sufficient assessment of the risks to the health and safety of staff to which they are exposed whilst at work, and of the risks to other persons arising out of or in connection with the department's undertaking.

Where it is not reasonably practicable to avoid work at height, then all such work should be risk assessed to determine whether enough precautions have been taken to reduce the risk, as low as reasonably practicable, or whether more need to be implemented. The process should not be overcomplicated, since the risks are usually well known and most necessary risk control measures are easy to apply. Specific work at height may be risk assessed as a separate activity or as one element of an associated work activity.

6. Deciding on and Implementing Risk Control Measures to Prevent Risk of a Fall

The overriding principle is that departments should do all that is reasonably practicable to prevent anyone falling a distance liable to cause personal injury. This should be achieved using the hierarchy of measures outlined below, with each being considered in the order shown.

6.1 Avoid Work at Height

If work at height is identified, then the first duty of departments is to avoid it, if reasonably practicable, by ensuring that work is carried out in a safe manner, other than at height.

6.2 Provide an existing safe place of work

If avoidance of work at height is not reasonably practicable, then departments must ensure that the place where work is carried out at height, including the means of access, is safe. It should also have features to prevent a fall, unless this would mean that it is not reasonably practicable for the worker to carry out the work safely, taking into account the demands of the task, equipment used and working environment. Detailed safety requirements for existing places of work and means of access/egress at height are set out in **Schedule 1** of WAHR. Refer to **Appendix 1**.

6.3 Preventing a Fall from Occurring

Preventing a fall from occurring cab be done by:

- Using collective protection such as an existing place of work that is already safe, e.g. a non-fragile roof with a permanent perimeter guard rail;
- Using collective protection in the form of work equipment to prevent a fall;
- Using personal protection in the form of work equipment to prevent a fall.

Where it not reasonably practicable or safe for the work to be carried out from an existing place of work, then departments must provide equipment for preventing, so far as is reasonably practicable, a fall occurring. See section 9 below on selecting equipment.

6.4 Provide Suitable and Sufficient Personal Protective Equipment

Where it not reasonably practicable or safe for the work to be carried out from an existing place of work, then departments must provide suitable and sufficient personal protective equipment.

6.5 Provide Sufficient Work Equipment to Minimise a Fall

If the precautions in sections 6.2 and 6.3 above do not entirely eliminate the risk of a fall occurring, departments must take suitable and sufficient measures to minimise the distance and effect of a fall by:

- Using collective protection in the form of work equipment to minimise the distance and consequences
 of a fall;
- Using personal protection in the form of work equipment to minimise the distance and consequences
 of a fall.

7. Using Ladders and Stepladders

For tasks of low risk and short duration, ladders and stepladders can be a sensible and practical option. If the department risk assessment determines it is correct to use a ladder, the department should further minimise the risk by making sure staff:

- Use the right type of ladder for the job;
- Are competent to use ladders and stepladders;
- Use the equipment provided safely and follow a safe system of work;
- Are fully aware of the risks and measures to help control them.

8. Recording the Significant Findings

The significant findings of risk assessments should be recorded using the <u>eRisk</u> System (see also <u>the Hazard Identification and Risk Management OHS Standard</u> and <u>Undertaking a Risk Assessment</u> Guidance Note).

Risk assessments will need to be reviewed and modified if there is any reason to suspect that the original assessment is no longer valid or there has been a significant change in the work to which the assessment relates. In most cases, it is prudent to plan to review risk assessments at regular intervals, or dependent on the nature of the risks and the degree of change likely in the work activity.

9. Selecting Work Equipment

When selecting equipment for work at height departments must:

- Provide the most suitable equipment appropriate for the work;
- Ensure employees use the most suitable equipment;
- Give collective protection measures (e.g. guard rails) priority over personal protection measures (e.g. safety harnesses);
- Take account of a variety of factors relating to the type of work involved, including:
 - The working conditions and the risks to the safety of persons at the place where the work equipment is to be used;
 - o The distance to be negotiated, in the case of work equipment for access and egress;
 - o The distance and consequences of a potential fall;
 - o The nature, duration and frequency of the work;
 - o The need for easy and timely evacuation and rescue in an emergency;
 - o The risk to the safety of everyone where work equipment will be used;
 - Any additional risk posed by the use, installation or removal of that work equipment or by evacuation and rescue from it;
 - Its dimensions in relation to the nature of the work, the foreseeable loadings and safe access/egress; and
- Ensure it complies with the applicable performance requirements covered by Schedules 2 to 6 of the WAHR.

10. Inspection of Places of Work and Work Equipment

10.1 Places of Work

For safety reasons it is required that, so far is reasonably practicable, each individual place at which work is to be carried out at height, is checked on **every** occasion before that place is used. This involves checking the surface and every parapet, permanent rail etc.

10.2 Work Equipment

Work equipment, for example scaffolding, needs to be assembled or installed according to the manufacturer's instructions and in keeping with industry guidelines.

Where the safety of the work equipment depends on how it has been installed or assembled, an employer should ensure it is not used until it has been inspected in that position by a competent person.

A competent person is someone who has the necessary skills, experience and knowledge to manage health and safety. Guidance on appointing a competent person can be found at www.hse.gov.uk/competence.

Any equipment exposed to conditions that may cause it to deteriorate, and result in a dangerous situation, should be inspected at suitable intervals appropriate to the environment and use. Do an inspection every time something happens that may affect the safety or stability of the equipment, e.g. adverse weather, accidental damage.

The department is required to keep a record of any inspection for types of work equipment including:

· Guard rails;

- Toe-boards:
- Barriers or similar collective means of protection;
- Working platforms (any platform used as a place of work or as a means of getting to and from work, e.g. a gangway) that are fixed (e.g. a scaffold around a building) or mobile (e.g. a mobile elevated working platform (MEWP) or scaffold tower); or
- A ladder.

Any working platform used for construction work and from which a person could fall more than 2 metres must be inspected:

- After assembly in any position;
- After any event liable to have affected its stability;
- At intervals not exceeding seven days.

Where it is a mobile platform, a new inspection and report is not required every time it is moved to a new location on the same site.

Departments must also ensure that before use any equipment, such as a MEWP, which has come from another business or rental company, it is accompanied by an indication (clear to everyone involved) when the last thorough examination has been carried out.

Work equipment used for work at height requires to be inspected more rigorously and this kind of inspection applies to the following equipment covered by Schedules 2 to 6 of the WAHR:

- Guard-rail, toe-board, barrier or similar collective means of fall protection (Schedule 2). Refer to Appendix 2;
- Any structure used for the purpose of supporting a working platform, including any plant used for that purpose (Schedule 3). Refer to <u>Appendix 3</u>;
- Collective safeguards for arresting falls (Schedule 4). Refer to Appendix 4;
- Personal fall protection systems (Schedule 5). Refer to Appendix 5; and
- Ladders (definition includes stepladders) (Schedule 6). Refer to Appendix 6.

The duties of departments to inspect work equipment and places of work are given in regulations 12 and 13 of WAHR respectively. The details to be included in a report of inspection of work equipment are given in Schedule 7 of the WAHR. Refer to **Appendix 7**.

11. Permit-Controlled Roof Access

Estates Services uses a permit-to-work procedure to control work by contractors, service providers, Estates Services personnel and departmental personnel, involving access to and work on roofs. Where a member of staff or service provider under the control of a department requires access to any roof, for whatever reason, a permit must be obtained from Estates Services prior to access in the following manner:

- At least 7 working days prior to the anticipated date of access to a roof, the University Supervising
 Officer (USO) for the department should complete and return to Estates Services a hardcopy Service
 Request (SR) form or create a web SR via Pegasus (details available on the Estates Services
 website). For example, the 'Nature of Request' section could read, 'Roof access permit required for
 Service Provider to service Department-owned equipment on roof of Thomas Graham Building';
- A representative from Estates Services will then contact the USO to discuss the proposed work and if necessary, may wish to speak with the particular service provider; and
- Once satisfied about the service provider's ability to take the necessary precautions, the Estates Services' representative will liaise with the USO and/or the service provider to make arrangements for the issue, monitoring and eventual signing off of a roof access permit, according to Estates Services procedures.

These procedures will include requiring the service provider to carry out certain checks following completion of roof work (e.g. that no materials have been left lying on the roof) and the Estates Services representative ensuring that these have been satisfactorily undertaken.

12. Managing Specific Risks

The WAHR state that specific risks from fragile surfaces, falling objects and danger areas should be adequately managed. In light of the above-mentioned roof access policy and since only Estates Services is permitted to manage all work relating to building fabric and services within the University, then all such work should be referred to Estates Services for their management control. However, the duties are mentioned here for information and in case situations arise that fall within the control of departments.

12.1 Fragile Surfaces

Departments must ensure that no one working under their control goes onto or near a fragile surface unless that is the only reasonably practicable way for the person to carry out the work safely, having regard to the demands of the task, equipment, or working environment. If anyone carries out work on or near a fragile surface then Estates Services should be involved and must:

- Ensure, so 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; and
- Do all that is reasonably practicable, if any risk of a fall remains, to minimise the distance and effect of a fall.

If anyone working under a department's control could inadvertently go onto or near a fragile surface, the department must do all that is reasonably practicable to make them aware of the danger, preferably by prominent warning notices fixed at the approaches to the danger zone.

12.2 Falling Objects

Where it is necessary to prevent injury, departments and/or Estates Services must do all that is reasonably practicable to prevent any object falling.

If this is not reasonably practicable, they must ensure that no one is injured by anything falling. Departments and/or Estates Services must ensure that nothing is:

- Thrown or tipped from height if it is likely to injure anyone; and
- Stored in such a way that its movement is likely to injure anyone.

If the workplace contains an area in which there is a risk of someone being struck by a falling object or person, departments and/or Estates Services must ensure that the area is clearly indicated and that, so far as is reasonably practicable, unauthorised persons are unable to reach it.

13. Procurement of Work at Height Equipment

Before a department purchases any new equipment for work at height, it should ensure that the hierarchy of measures to prevent risk of a fall has been used and where it is determined that work equipment is necessary, that criteria at section 9 above are considered. Once purchased, the equipment should be added to the schedule of work equipment to ensure that it is appropriately inspected at suitable intervals.

14. Safe Use of Ladders and Stepladders

It is recognised that some departments make kick stools, ladders and stepladders available to staff for work activities. Nationally, a considerable number of injuries are caused by the inappropriate and incorrect use of these items. It is therefore important for responsible persons to know when to use, how to select, how to use safely and how to look after such items.

As a guide, only use a ladder:

- On firm ground
- On level ground refer to the manufacturer's pictograms on the side of the ladder. Use proprietary levelling devices, not ad-hoc packing such as bricks, blocks, timbers etc;
- On clean, solid surfaces (paving slabs, floors etc). These need to be clean (no oil, moss or leaf litter)
 and free of loose material (sand, packaging materials etc) so the feet can grip. Shiny floor surfaces
 can be slippery even without contamination;
- Where it will not be struck by vehicles (protect the area using suitable barriers or cones);
- Where it will not be pushed over by other hazards such as doors or windows, i.e. secure the doors (not fire exits) and windows where possible;
- Where the general public are prevented from using it, walking underneath it or being at risk because they are too near (use barriers, cones or, as a last resort, a person standing guard at the base);
- Where it has been secured Refer to <u>Appendix 13</u>.

The reference to LA455 in the next section is a helpful guide on this subject.

15. Further Information and Guidance

Key Management Actions

The Work at Height Regulations 2005

The Work at Height (Amendment) Regulations 2007

Working at Height - A Brief Guide (HSE, INDG 401)

The Safe Use of Ladders and Stepladders - A Brief Guide (The Ladder Association and HSE, LA455)

HSE website

Falls from Height:

- https://www.hse.gov.uk/food/falls.htm
- https://www.hse.gov.uk/event-safety/falls-from-height.htm
- https://www.hse.gov.uk/safemaintenance/falls-from-height.htm

Fragile Surfaces

https://www.hse.gov.uk/construction/safetytopics/fragile.htm

Step by Step Guide to Control Risk of Work at Height

https://www.hse.gov.uk/work-at-height/step-by-step-guide.htm

OHSOS 025 V1.2 Owner: Head, SHaW Page 7 of 24 Issue date: August 2011 Last review date: February 2023 Next review date: February 2025

Requirements for Existing Places of Work and Means of Access or Egress at Height

Every existing place of work or means of access or egress at height shall:

- (a) Be stable and of sufficient strength and rigidity for the purpose for which it is intended to be or is being used;
- (b) Where applicable, rest on a stable, sufficiently strong surface;
- (c) Be of sufficient dimensions to permit the safe passage of persons and the safe use of any plant or materials required to be used and to provide a safe working area having regard to the work to be carried out there;
- (d) Possess suitable and sufficient means for preventing a fall;
- (e) Possess a surface which has no gap—
 - (i) Through which a person could fall;
 - (ii) Through which any material or object could fall and injure a person; or
 - (iii) Giving rise to other risk of injury to any person, unless measures have been taken to protect persons against such risk.
- (f) Be so constructed and used, and maintained in such condition, as to prevent, so far as is reasonably practicable—
 - (i) The risk of slipping or tripping; or
 - (ii) Any person being caught between it and any adjacent structure.
- (g) Where it has moving parts, be prevented by appropriate devices from moving inadvertently during work at height.

Requirements for Guard-rails, Toe-boards, Barriers and Similar Collective Means of Protection

- 1. Unless the context otherwise requires, any reference in this Schedule to means of protection is to a guard-rail, toe-board, barrier or similar collective means of protection.
- 2. Means of protection shall:
 - (a) Be of sufficient dimensions, of sufficient strength and rigidity for the purposes for which they are being used, and otherwise suitable;
 - (b) Be so placed, secured and used as to ensure, so far as is reasonably practicable, that they do not become accidentally displaced; and
 - (c) Be so placed as to prevent, so far as is practicable, the fall of any person, or of any material or object, from any place of work.
- 3. In relation to work at height involved in construction work:
 - (a) The top guard-rail or other similar means of protection shall be at least 950 millimetres or, in the case of such means of protection already fixed at the coming into force of these Regulations, at least 910 millimetres above the edge from which any person is liable to fall;
 - (b) Toe-boards shall be suitable and sufficient to prevent the fall of any person, or any material or object, from any place of work; and
 - (c) Any intermediate guard-rail or similar means of protection shall be positioned so that any gap between it and other means of protection does not exceed 470 millimetres.
- 4. Any structure or part of a structure which supports means of protection or to which means of protection are attached shall be of sufficient strength and suitable for the purpose of such support or attachment.

5.

- (1) Subject to sub-paragraph (2), there shall not be a lateral opening in means of protection save at a point of access to a ladder or stairway where an opening is necessary.
- (2) Means of protection shall be removed only for the time and to the extent necessary to gain access or egress or for the performance of a particular task and shall be replaced as soon as practicable.
- (3) The task shall not be performed while means of protection are removed unless effective compensatory safety measures are in place.

OHSOS 025 V1.2 Owner: Head, SHaW Page 9 of 24
Issue date: August 2011 Last review date: February 2023 Next review date: February 2025

Requirements for Working Platforms

Part 1 - Requirements for all Working Platforms

Interpretation

1. In this Schedule, "supporting structure" means any structure used for the purpose of supporting a working platform and includes any plant used for that purpose.

Condition of surfaces

Any surface upon which any supporting structure rests shall be stable, of sufficient strength and of suitable composition safely to support the supporting structure, the working platform and any loading intended to be placed on the working platform.

Stability of supporting structure

- 3. Any supporting structure shall:
 - (a) Be suitable and of sufficient strength and rigidity for the purpose for which it is being used;
 - (b) In the case of a wheeled structure, be prevented by appropriate devices from moving inadvertently during work at height;
 - (c) In other cases, be prevented from slipping by secure attachment to the bearing surface or to another structure, provision of an effective anti-slip device or by other means of equivalent effectiveness;
 - (d) Be stable while being erected, used and dismantled; and
 - (e) When altered or modified, be so altered or modified as to ensure that it remains stable.

Stability of working platforms

- 4. A working platform shall:
 - (a) Be suitable and of sufficient strength and rigidity for the purpose or purposes for which it is intended to be used or is being used;
 - (b) Be so erected and used as to ensure that its components do not become accidentally displaced so as to endanger any person;
 - (c) When altered or modified, be so altered or modified as to ensure that it remains stable; and
 - (d) Be dismantled in such a way as to prevent accidental displacement.

Safety on working platforms

- 5. A working platform shall:
 - (a) Be of sufficient dimensions to permit the safe passage of persons and the safe use of any plant or materials required to be used and to provide a safe working area having regard to the work being carried out there;
 - (b) Possess a suitable surface and, in particular, be so constructed that the surface of the working platform has no gap:
 - (i) Through which a person could fall;
 - (ii) Through which any material or object could fall and injure a person; or
 - (iii) Giving rise to other risk of injury to any person, unless measures have been taken to protect persons against such risk; and
 - (c) Be so erected and used, and maintained in such condition, as to prevent, so far as is reasonably practicable:
 - (i) The risk of slipping or tripping; or
 - (ii) Any person being caught between the working platform and any adjacent structure.

Appendix 3 (continued)

Loading

6. A working platform and any supporting structure shall not be loaded so as to give rise to a risk of collapse or to any deformation which could affect its safe use.

Part 2 - Additional Requirements for Scaffolding

- 7. Strength and stability calculations for scaffolding shall be carried out unless:
 - (a) A note of the calculations, covering the structural arrangements contemplated, is available; or
 - (b) It is assembled in conformity with a generally recognised standard configuration.
- 8. Depending on the complexity of the scaffolding selected, an assembly, use and dismantling plan shall be drawn up by a competent person. This may be in the form of a standard plan, supplemented by items relating to specific details of the scaffolding in question.
- 9. A copy of the plan, including any instructions it may contain, shall be kept available for the use of persons concerned in the assembly, use, dismantling or alteration of scaffolding until it has been dismantled.
- 10. The dimensions, form and layout of scaffolding decks shall be appropriate to the nature of the work to be performed and suitable for the loads to be carried and permit work and passage in safety.
- 11. While a scaffold is not available for use, including during its assembly, dismantling or alteration, it shall be marked with general warning signs in accordance with the Health and Safety (Safety Signs and Signals) Regulations 1996 and be suitably delineated by physical means preventing access to the danger zone.
- 12. Scaffolding may be assembled, dismantled or significantly altered only under the supervision of a competent person and by persons who have received appropriate and specific training in the operations envisaged which addresses specific risks which the operations may entail and precautions to be taken, and more particularly in:
 - (a) Understanding of the plan for the assembly, dismantling or alteration of the scaffolding concerned:
 - (b) Safety during the assembly, dismantling or alteration of the scaffolding concerned;
 - (c) Measures to prevent the risk of persons, materials or objects falling;
 - (d) Safety measures in the event of changing weather conditions which could adversely affect the safety of the scaffolding concerned;
 - (e) Permissible loadings;
 - (f) Any other risks which the assembly, dismantling or alteration of the scaffolding may entail.

Requirements for Collective Safeguards for Arresting Falls

- 1. Any reference in this Schedule to a safeguard is to a collective safeguard for arresting falls.
- 2. A safeguard shall be used only if:
 - (a) A risk assessment has demonstrated that the work activity can so far as is reasonably practicable be performed safely while using it and without affecting its effectiveness;
 - (b) The use of other, safer work equipment is not reasonably practicable; and
 - (c) A sufficient number of available persons have received adequate training specific to the safeguard, including rescue procedures.
- 3. A safeguard shall be suitable and of sufficient strength to arrest safely the fall of any person who is liable to fall.
- 4. A safeguard shall:
 - (a) In the case of a safeguard which is designed to be attached, be securely attached to all the required anchors, and the anchors and the means of attachment thereto shall be suitable and of sufficient strength and stability for the purpose of safely supporting the foreseeable loading in arresting any fall and during any subsequent rescue;
 - (b) In the case of an airbag, landing mat or similar safeguard, be stable; and
 - (c) In the case of a safeguard which distorts in arresting a fall, afford sufficient clearance.
- Suitable and sufficient steps shall be taken to ensure, so far as practicable, that in the event of a fall by any person the safeguard does not itself cause injury to that person.

OHSOS 025 V1.2 Owner: Head, SHaW Page 12 of 24
Issue date: August 2011 Last review date: February 2023 Next review date: February 2025

Requirements for Personal Fall Protection Systems

Part 1 - Requirements for Personal Fall Protection Systems

- 1. A personal fall protection system shall be used only if:
 - (a) A risk assessment has demonstrated that:
 - (i) The work can so far as is reasonably practicable be performed safely while using that system; and
 - (ii) The use of other, safer work equipment is not reasonably practicable; and
 - (b) The user and a sufficient number of available persons have received adequate training specific to the operations envisaged, including rescue procedures.
- 2. A personal fall protection system shall:
 - (a) Be suitable and of sufficient strength for the purposes for which it is being used having regard to the work being carried out and any foreseeable loading;
 - (b) Where necessary, fit the user;
 - (c) Be correctly fitted;
 - (d) Be designed to minimise injury to the user and, where necessary, be adjusted to prevent the user falling or slipping from it, should a fall occur; and
 - (e) Be so designed, installed and used as to prevent unplanned or uncontrolled movement of the user.
- 3. A personal fall protection system designed for use with an anchor shall be securely attached to at least one anchor, and each anchor and the means of attachment thereto shall be suitable and of sufficient strength and stability for the purpose of supporting any foreseeable loading.
- 4. Suitable and sufficient steps shall be taken to prevent any person falling or slipping from a personal fall protection system.

Part 2

Additional Requirements for Work Positioning Systems

A work positioning system shall be used only if either:

- (a) The system includes a suitable backup system for preventing or arresting a fall; and
- (b) Where the system includes a line as a backup system, the user is connected to it; or
- (c) Where it is not reasonably practicable to comply with sub-paragraph (a), all practicable measures are taken to ensure that the work positioning system does not fail.

Part 3

Additional Requirements for Rope Access and Positioning Techniques

- 1. A rope access or positioning technique shall be used only if:
 - (a) Subject to paragraph 3, it involves a system comprising at least two separately anchored lines, of which one ("the working line") is used as a means of access, egress and support and the other is the safety line;
 - (b) The user is provided with a suitable harness and is connected by it to the working line and the safety line;
 - (c) The working line is equipped with safe means of ascent and descent and has a self-locking system to prevent the user falling should he lose control of his movements; and
 - (d) The safety line is equipped with a mobile fall protection system which is connected to and travels with the user of the system.

- 2. Taking the risk assessment into account and depending in particular on the duration of the job and the ergonomic constraints, provision must be made for a seat with appropriate accessories.
- 3. The system may comprise a single rope where:
 - (a) A risk assessment has demonstrated that the use of a second line would entail higher risk to persons; and
 - (b) Appropriate measures have been taken to ensure safety.

Part 4

Additional Requirements for all Fall Arrest Systems

- 1. A fall arrest system shall incorporate a suitable means of absorbing energy and limiting the forces applied to the user's body.
- 2. A fall arrest system shall not be used in a manner:
 - (a) Which involves the risk of a line being cut;
 - (b) Where its safe use requires a clear zone (allowing for any pendulum effect), which does not afford such zone; or
 - (c) Which otherwise inhibits its performance or renders its use unsafe.

Part 5

Additional Requirements for Work Restraint Systems

A work restraint system shall:

- (a) Be so designed that, if used correctly, it prevents the user from getting into a position in which a fall can occur; and
- (b) Be used correctly.

Requirements for Ladders

- 1. Every employer shall ensure that a ladder is used for work at height only if a risk assessment under regulation 3 of the Management Regulations has demonstrated that the use of more suitable work equipment is not justified because of the low risk and:
 - (a) The short duration of use; or
 - (b) Existing features on site which he cannot alter.
- 2. Any surface upon which a ladder rests shall be stable, firm, of sufficient strength and of suitable composition safely to support the ladder so that its rungs or steps remain horizontal, and any loading intended to be placed on it.
- 3. A ladder shall be so positioned as to ensure its stability during use.
- 4. A suspended ladder shall be attached in a secure manner and so that, with the exception of a flexible ladder, it cannot be displaced and swinging is prevented.
- 5. A portable ladder shall be prevented from slipping during use by:
 - (a) Securing the stiles at or near their upper or lower ends;
 - (b) An effective anti-slip or other effective stability device; or
 - (c) Any other arrangement of equivalent effectiveness.
- 6. A ladder used for access shall be long enough to protrude sufficiently above the place of landing to which it provides access, unless other measures have been taken to ensure a firm handhold.
- 7. No interlocking or extension ladder shall be used unless its sections are prevented from moving relative to each other while in use.
- 8. A mobile ladder shall be prevented from moving before it is stepped on.
- 9. Where a ladder or run of ladders rises a vertical distance of 9 metres or more above its base, there shall, where reasonably practicable, be provided at suitable intervals sufficient safe landing areas or rest platforms.
- 10. Every ladder shall be used in such a way that:
 - (a) A secure handhold and secure support are always available to the user; and
 - (b) The user can maintain a safe handhold when carrying a load unless, in the case of a step ladder, the maintenance of a handhold is not practicable when a load is carried, and a risk assessment under regulation 3 of the Management Regulations has demonstrated that the use of a stepladder is justified because of:
 - (i)the low risk; and
 - (ii)the short duration of use.

Particulars to be Included in a Report of Inspection

- 1. The name and address of the person for whom the inspection was carried out.
- 2. The location of the work equipment inspected.
- 3. A description of the work equipment inspected.
- 4. The date and time of the inspection.
- 5. Details of any matter identified that could give rise to a risk to the health or safety of any person.
- 6. Details of any action taken as a result of any matter identified in paragraph 5.
- 7. Details of any further action considered necessary.
- 8. The name and position of the person making the report.

Appendix 8 - Leaning ladders

When using a leaning ladder to carry out a task:

- Only carry light materials and tools read the manufacturer's labels on the ladder and assess the risks;
- Don't overreach make sure your belt buckle (or navel) stays within the stiles;
- Make sure the ladder is long enough or high enough for the task;
- Don't overload the ladder consider your weight and the equipment or materials you are carrying before working at height;
- Check the pictogram or label on the ladder for any advisory information;
- To help make sure the ladder angle is at the safest position to work from- you should use the 1in-4 rule. This is where the ladder should be one space or unit of measurement out for every four
 spaces or units up (a 75° angle);
- Always grip the ladder and face the ladder rungs while climbing or descending don't slide down the stiles;
- Don't try to move or extend the ladder while standing on the rungs;
- Don't work off the top three rungs. Try to make sure that the ladder extends at least 1 metre or three rungs above where you are working;
- Don't stand ladders on movable objects, such as pallets, bricks, lift trucks, tower scaffolds, excavator buckets, vans or mobile elevating work platforms;
- Avoid holding items when climbing (consider using a tool belt);
- Don't work within 6 m horizontally of any overhead power line, unless it has been made dead or
 it is protected with insulation. Use a non-conductive ladder (e.g. fibreglass or timber) for any
 electrical work;
- Maintain three points of contact when climbing and wherever possible at the work position;
- Where you cannot maintain a handhold, other than for a brief period (e.g. to hold a nail while starting to knock it in, start a screw etc), you will need to take other measures to prevent a fall or mitigate the consequences if one happened;
- Secure the ladder (e.g. by tying the ladder to prevent it from slipping either outwards or sideways) and have a strong upper resting point (i.e. do not rest it against weak upper surfaces such as glazing or plastic gutters);
- Consider using an effective stability device (a device which, if used correctly, prevents the ladder from slipping, some types of ladders come with these).

Appendix 9 - Telescopic ladders

Telescopic ladders are a variation of leaning ladders but remember that they don't all work in the same way.

They should always be used, stored and transported with care and kept clean. In addition to following this guidance, it's important you read and follow the user instructions provided by the manufacturer.

Before every use – in addition to the normal ladder checks – make sure they are operating correctly and that the mechanisms that lock each section are working properly.

Always follow the user instructions regarding the opening and closing procedure.

Be aware of the potential for trapping fingers between the closing sections.

Remember some of the important parts are inside where they cannot be seen. If you are in any doubt, do not use them.

Appendix 10 - Stepladders

When using a stepladder to carry out a task:

- Check all four stepladder feet are in contact with the ground and the steps are level;
- Only carry light materials and tools;
- Don't overreach;
- Don't stand and work on the top three steps (including a step forming the very top of the stepladder) unless there is a suitable handhold;
- Ensure any locking devices are engaged;
- Try to position the stepladder to face the work activity and not side on. However, there are
 occasions when a risk assessment may show it is safer to work side on, e.g. when you can't
 engage the stepladder locks to work face on because of space restraints, but you can fully
 engage stepladder locks to work side on;
- Try to avoid work that imposes a side loading, such as side-on drilling through solid materials (e.g. bricks or concrete);
- Where side loadings cannot be avoided, you should prevent the steps from tipping over, e.g. by tying the steps. Otherwise, use a more suitable type of access equipment;
- Maintain three points of contact at the working position. This means two feet and one hand, or when both hands need to be free for a brief period, two feet and the body supported by the stepladder.

When deciding whether it is safe to carry out a particular task on a stepladder where you cannot maintain a handhold, the decision needs to be justified, taking into account:

- The height of the task;
- Whether a handhold is still available to steady yourself before and after the task;
- Whether it is light work;
- Whether it avoids side loading;
- Whether it avoids overreaching;
- Whether the stepladder can be tied (e.g. when side-on working).

Appendix 11 - Combination and multi-purpose ladders

Combination and multi-purpose ladders can be used as stepladders, a variation of stepladders or leaning ladders. Combination ladders are sometimes referred to as 'A' frame ladders.

These types of ladders can be used in a variety of different configurations. You should:

- Check to ensure that any locking mechanism is properly engaged before use;
- Always recheck the locking mechanism if the setup of the ladder is changed;
- On three-part combination ladders, never extend the top section (the section extending above the A frame) beyond the limit marked on the ladder and specified in the user manual.

Appendix 12 - Inspection

Inspecting the condition of ladders

Employers need to make sure that any ladder or stepladder is both suitable for the work task and in a safe condition before use. As a guide, only use ladders or stepladders that:

- Have no visible defects. They should have a pre-use check each working day;
- Have an up-to-date record of the detailed visual inspections carried out regularly by a competent person. These should be done in accordance with the manufacturer's instructions. Ladders that are part of a scaffold system still have to be inspected every seven days as part of the scaffold inspection requirements;
- Are suitable for the intended use, i.e. are strong and robust enough for the job;
- Have been maintained and stored in accordance with the manufacturer's instructions.

A detailed visual inspection is similar to pre-use checks, in that it is used to spot defects and can be done on site by a competent employee.

Pre-use checks make sure that a ladder is safe to use and are for the immediate benefit of the ladder user. These checks do not need to be recorded.

Detailed visual inspections are the responsibility of the employer. They should be carried out at fixed intervals and recorded. Records of these inspections provide a snapshot of the state of the ladders over time.

When doing an inspection, look for:

- Damaged or worn ladder feet;
- Twisted, bent or dented stiles;
- · Cracked, worn, bent or loose rungs;
- Missing or damaged tie rods;
- Cracked or damaged welded joints, loose rivets or damaged stays.

Pre-use checks and inspections of ladder stability devices and other accessories should be performed in accordance with the manufacturer's instructions.

How to check your ladder is safe before you use it

Before using a ladder, you should have access to user instructions from the manufacturer in case you need to refer to them.

You should always carry out a 'pre-use' check to spot any obvious visual defects to make sure the ladder is safe to use.

A pre-use check should be carried out:

- By the person using the ladder;
- At the beginning of the working day;
- · After something has changed.

The check should include:

- The stiles make sure they are not bent or damaged, as the ladder could buckle or collapse
- The **feet** if they are missing, worn or damaged the ladder could slip. Also check the ladder feet when moving from soft/dirty ground to a smooth, solid surface, to make sure the actual feet and not dirt are making contact with the ground;
- The **rungs** if they are bent, worn, missing or loose, the ladder could fail;
- Any **locking mechanism** does the mechanism work properly? Are components or fixings bent, worn or damaged? If so, the ladder could collapse. Ensure any locking bars are fully engaged;
- The **stepladder platform** if it is split or buckled, the ladder could become unstable or collapse;
- The **steps or treads on stepladders** if they are contaminated, they could be slippery; if the fixings are loose on the steps, they could collapse.

If you identify any of the above defects, do not use the ladder and report defects to the person in charge of the work.

Appendix 13 – Securing Ladders and Ladders Used for Access

Options for Securing Ladders

The options are as follows:

- Tie the ladder to a suitable point, making sure both stiles are tied;
- Where this is not practical, secure the ladder with an effective ladder stability device;
- If this is not possible, securely wedge the ladder (eg wedge the stiles against a wall);
- If you cannot achieve any of these options, foot the ladder. Footing is the last resort.

Ladders Used for Access

In general:

- Ladders used to access another level should be tied and extend at least 1 m above the landing point to provide a secure handhold;
- At ladder access points, a self-closing gate is recommended;
- Stepladders should not be used to access another level, unless they have been specifically designed for this.

Appendix 14 - Key Management Actions

The following summarises how departments can effectively implement this Local Rule and integrate it into its management systems. These processes will be monitored as part of the Safety Health and Wellbeing Audit Programme, and where departments are able to demonstrate fulfilment of key actions, this is likely to provide evidence of good practice.

		Key Management Actions
1.	Departmental Roles	 ensure that at least one responsible person (nominated co-ordinator) is appointed to co-ordinate the arrangements for safe working at height; ensure that the duties of the nominated co-ordinator are defined based on those in section 3.1 above; ensure that appropriate management, administrative and technical systems and procedures are in place to effectively control risks from work at height; and ensure that above systems and procedures are incorporated into general departmental arrangements and communicated to relevant staff.
2.	Identifying Work at Height	 ensure that all work activities that fall, or could potentially fall within the definition of work at height are identified and that an up to date list is maintained; and ensure that it is determined whether each work at height activity can be avoided.
3.	Evaluating the Risks	 ensure that for each work at height activity, risks are evaluated, either separately, or as an element of an associated work activity, using S20 Form; and ensure that the significant findings of risk assessments are used to determine if enough precautions have been taken to reduce the risks.
4.	Implementing Measures to Prevent Risk of a Fall	 ensure that for each work at height activity, each point of the hierarchy of measures to prevent risk of a fall, is considered in the order given, to determine the most reasonably practicable measure; and ensure the selected measure(s) is implemented and remains effective.
5.	Recording the Significant Findings	 ensure that the significant findings are appropriately recorded; and ensure that risk assessments are reviewed periodically (at least every 2 years) or when significant changes are imminent, or have occurred, and are modified as necessary.
6.	Selecting Work Equipment	ensure that any equipment for work at height is selected according to the requirements given in para.7.
7.	Inspection of Places of Work and Work Equipment	 ensure that places of work where work at height is carried out are checked on each occasion before use, if reasonably practicable; ensure that an inventory of all work equipment, used for work at height, is kept up to date; ensure that such work equipment is both visually inspected prior to each use and formally inspected according to the requirements of regulation 12 of WAHR; and ensure that reports of inspections include the particulars of Schedule 7 of WAHR.

		Key Management Actions
8.	Planning & Organising Work at Height	 With regard to actual work at height, it should be ensured that: work is properly planned and organised; planning includes the selection of work equipment and the planning for emergencies and rescue; a safe system of work is developed, based on the significant findings of the relevant risk assessment; work is appropriately supervised; and account is taken of weather conditions that could endanger health and safety.
9.	Providing Information, Instruction, Training & Supervision	 ensure that everyone involved in work at height is competent; and ensure that training covers planning and organisation of work at height, supervision and the supply and maintenance of equipment.
10.	Permit-controlled Roof Access	 ensure that any work relating to building fabric, building services and construction, is referred to Estates Services for management control; and ensure that permits-to-work are obtained from Estates Services prior to any access to roofs by staff/students or service providers under the department's control.
11.	Managing Specific Risks	ensure that measures are taken, where necessary in conjunction with Estates Services, to manage risks relating to fragile surfaces, falling objects and danger areas.
12.	Procurement of Work at Height Equipment	 ensure that procedures are developed to verify that before the purchase of new equipment for work at height: the hierarchy of measures has been used to determine that it is necessary; and that it has been selected according to section 9 criteria.
13.	Safe Use of Ladders and Stepladders	ensure that, where necessary, the advice in the HSE publication <u>Safe Use of Ladders and Stepladders</u> is issued to relevant Persons.