

Falls from Height

Guidance on the application of the Work at Height Amendment Regulations 2005 to persons instructing climbing and caving

This advice provides a practical guide to the interpretation and applications of the Work at Height Amendment Regulations 2005 (WAHAR) when people are instructing or leading at height in the adventure activities sector. Although the terms climbing and caving are used through out the guidance, activities such as canyoning and ropes or challenge courses, where there is work at height, are also covered. The term instructor is used to cover all those whose work is covered by this guidance. The term provider is used to cover all those who are duty holders under WAHR. This guidance does not apply to work at height that does not form part of an adventure activity e.g. maintenance of activity centre buildings or equipment. This guidance will be of use to both those enforcing the regulations and to those who work themselves or manage workers in the adventure activities sector.

FOREWORD

Adventurous activities provide an important outlet for many thousands of people seeking to get away from the routine, or who simply want to challenge themselves physically. For many of those taking part, particularly the young, climbing and caving courses are the first steps in a life long involvement in these recreational pursuits. Most importantly, activities like climbing and caving expose participants to measured risk and provide essential lessons in risk management that can't be had in our normal day-to-day lives.

The hazards can be high and even though the overwhelming majority of those taking part do so safely there are from time to time occasions when things go wrong and some of these have tragic consequences. This is why the sector invests heavily in ensuring that the risks inherent in the activities and in the natural environment in which it works are clearly understood, communicated and carefully monitored; the activities are properly managed and planned; equipment is regularly checked and inspected; and leaders and instructors are well trained and competent in the activities being undertaken.

These risk management arrangements are underpinned by the high standards of the climbing and caving national governing bodies. Where these are effectively communicated and properly applied we believe they can provide an equivalent level of safety in the natural environment to that prevailing in the more traditional work at height activities. This guidance therefore provides a bridge to help practitioners reassure themselves that by applying their national governing body standards they can continue to comply with the law when working at height; and it helps HSE and local authority regulators interpret the practices that prevail in the sector in the context of work at height regulations.

We therefore commend this guidance to practitioners and regulators alike.



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(AAIAC)

INTRODUCTION

1. The Work at Height Regulations 2005 (WAHR) came in to effect on 6 April 2005. They were amended by the Work at Height (Amendment) Regulations 2007. The original Regulations applied to all work at height except for those workers leading or instructing climbing or caving in the adventure activities industry. The amended Regulations remove the exemption for adventure activities.
2. The exemption of the adventure activities workers was not sustainable in the long term and since the implementation of WAHR, there has been a lengthy but productive dialogue with representatives of the climbing and caving communities on possible ways of resolving this issue. The providers and workers in this sector would be directly affected by any change and there were significant concerns about the possible impact of the regulations on the existing good practices of the sector. HSE carried out a small-scale pilot study to see how the sector could comply with WAHR and it concluded that existing good practice was likely to be sufficient to comply with WAHR.
3. The discussions between HSE and the sector have explored the issues and the ways in which the sector can demonstrate that its existing good standards and practices are in harmony with the aims and requirements of WAHR.
4. These Regulations do not prevent or restrict sporting activities and they do not apply to private individuals taking part in an adventure activity, even if they are receiving instruction. It is the considered view of HSE that an adventure activity provider, employing competent instructors, following the clearly established good practices of sports National Governing Bodies (NGBs), including Mountain Leader Training UK, and the British Caving Association, will normally be doing enough to comply with WAHR and they should not require to do anything more, particularly if they already hold a licence issued by the Adventure Activities Licensing Authority (AALA).
5. This guidance has been written in close consultation with the Adventure Activities Industry Advisory Committee Working Group on Work at Height (membership is shown at Annex 2). It explains how WAHR should be interpreted in relation to adventure activities. It will be of use to enforcers when determining whether or not a duty holder has discharged their duty. Many of the providers in the sector are small or medium sized enterprises and this guidance will be of assistance to them in meeting their legal duties in the least burdensome way.

BACKGROUND

6. For many of those working in the adventure activities sector, work at height is clearly an unavoidable part of their work and there is often no reasonably practicable alternative.
7. The activities of climbing and caving instruction have a historically good safety record with very few reportable accidents happening.
8. The techniques and good practices promulgated by the NGBs have evolved over a considerable time, sometimes decades and have been subject to an extensive process of trial, review and evaluation. Critical to this process is determining that the practice is safe in use. Only after this process does a technique become accepted as good practice. HSE is satisfied that by working in accordance with established activity good practice, instructors and their employers in climbing and caving and will normally be able to comply with the requirements of the Work at Height Regulations.

GUIDANCE ON REGULATIONS

9. This guidance provides information on the interpretation of each of the regulations in WAHR and how they relate to work at height in the adventure activities industry. Provider, a term in common use in the sector, is used in this guidance to mean someone who provides adventure activities and who has duties under WAHR. This may be an organisation, an employer or a self-employed person.

Regulation 2 - Interpretation

10. Fragile surface – in the context of this guidance, surfaces such as scree slopes, ice covered water and snow cornices would be fragile surfaces.
11. Personal fall protection system – commonly the rope(s), protection (anchor points, bolts, etc.), hardware (karabiners etc.) and harnesses used in climbing and caving function together as a fall protection system rather than as a means of access or positioning, as generally it is the rock that is climbed, not the rope. There are, however, times when the same system will function as a positioning system, for example when abseiling down a pitch or being lowered into a cave.
12. Working platform – in adventure activities, this is considered to be any man made platform used as a place of work or a means of access or egress to a place of work. It is not considered to include natural ledges or similar.

Regulation 3 - Application

13. The Regulations apply to all those working at height in adventure activities. The test for work and working is the same as for any other statutory provision. The Regulations do not apply to those who are not at work, e.g. members of the public pursuing caving for their own pleasure. The Regulations do not apply to voluntary rescue teams and the imperative of saving life should not be interfered with.

Regulation 4 – Organisation and Planning

14. The good organisation and planning of activities, including for emergencies, is a strong feature of this sector. Providers will use many and varied ways of planning activities and providing that there is evidence of proper planning, then there is no need to be prescriptive about the system used. Changes to the plan may be needed during the course of a session for example due to difficulties on the ground or due to weather changes.
15. Providers are free to determine the appropriate level of supervision of work at height. Supervision may range from planned joint working with an experienced colleague for a newly qualified instructor, to occasional monitoring for more experienced individuals. There may be other equally appropriate and effective methods of supervision.
16. In many cases, it may well be necessary for people to work in severe weather conditions that could, at first sight, be considered to jeopardise health and safety if an overly literal interpretation of this regulation (regulation 4(3)) is taken. For example, it is essential for a winter climbing course to take place in winter, when snow or ice conditions are to be expected or for caving instructors to experience the full range of environmental conditions. Competent people will be able to select technical and personal protective equipment appropriate for the expected weather conditions and those working in such conditions will have a sufficient level of ability, experience and competence to enable them to make appropriate judgements relating to the weather. See competence below.
17. The regulations make reference to planning for emergencies and rescue as part of the overall planning process. Providers may include this in their risk assessment, operating procedures, in a separate emergency procedures document or by reference to the appropriate sections from the relevant NGB syllabus. In this sector, instructors will be trained and assessed as competent to deal with emergencies and to effect rescue within the scope of their operations. If an instructor is unable to deal with the situation quickly and effectively themselves, they should raise the alarm by making contact with their base or with the emergency services. In many cases, instructors will be operating distant from a base with a client group. There is no expectation that the clients will be trained to effect rescue and it will be sufficient that

someone in the group knows what to do if the instructor becomes incapacitated. Further information can be found in L77.

18. Summary - there is clear evidence that all work at height is properly planned, appropriately supervised and carried out in a manner, which is so far as is reasonably practicable safe.

Regulation 5 – Competence

19. There are four ways to demonstrate competence in this sector – NGB qualifications, equivalent qualifications, in-house training and competence through experience. Further detail on possible means of demonstrating competence are given in the HSE publication “Guidance to the Licensing Authority on the Adventure Activities Licensing Regulations 1996” (L77- HSE Books).
20. Those who have obtained appropriate NGB instruction or leadership qualifications will have undergone a structured programme of training and assessment. They will also have demonstrated that they have appropriate personal experience of their discipline in a wide variety of situations. There may be a requirement for an ongoing continuing professional development or revalidation of qualifications. Such training and assessment is often far more rigorous than that found in traditional industries where work at height is carried out. Although NGB qualifications may not explicitly include formal training in risk assessment in their syllabi, an understanding of the principles of risk assessment and an ability to practise it is an integral part of training, assessment and subsequent day-to-day work practices. Holders of the specified qualifications will be technically competent to take charge of, and responsibility for the safety of, themselves and a group of participants during an activity session at a particular hazard level in a wide range of circumstances. Details of what are considered to be appropriate NGB qualifications can be found at annex 2. See also Regulation 6 below.
21. Possession of NGB qualifications is only one way of demonstrating competence and other qualifications are acceptable providing they are accepted by the relevant NGB as setting equivalent levels of competence for the particular activity e.g. qualifications awarded by bodies in European or other nations.
22. Many providers train staff on an in-house scheme, which can be a stand-alone system or may supplement a NGB qualification. Such schemes are common and include instructing an abseiling session on a dedicated abseiling tower or instructing groups in specified gorges. Where in-house training, rather than an externally assessed qualification, is the means by which the level of competence specified is assured, the training syllabus should be specified by, and the competence of trained staff assessed by, someone qualified to fulfil these roles for the equivalent national qualification.

23. There are many individuals working in the outdoors who are highly competent and experienced but who do not hold any NGB qualification (or none may exist). Evidence that their competence has been assessed by someone qualified to fulfil this role for the equivalent national qualification would generally be suitable. Where the provider has a licence issued by the Adventure Activities Licensing Authority (AALA), the suitability and competence of workers in this category will have been considered as part of the licensing process.
24. For some activities such as combined water and rock activities (canyoning, sea level traversing) or ropes or challenge courses, which may involve work at height and for which there is no NGB, both caving and climbing qualifications could be appropriate. If a provider holds a licence issued by AALA, then the qualifications and competencies of the staff will have been assessed as part of the licensing process.
25. Summary - there is clear evidence that all persons involved in work at height are competent.

Regulation 6 – Avoidance of risks from work at height

26. It is not reasonably practicable for those instructing climbing or caving to avoid work at height – indeed it is their *raison d'être*. The accepted good practices in climbing and caving and the equipment used, have evolved so as to limit the height of a fall and to mitigate the consequences. There is not considered to be any conflict with the duty under this regulation.
27. Providers are still required to take account of their general risk assessment under the Management Regulations irrespective of the above. Many providers will follow the pattern of generic risk assessment, site-specific risk assessment (where required) and dynamic risk assessment.
28. Generic risk assessment – this is required of all providers and would equate to the risk assessment already required by the Management Regulations. If the general risk assessment already adequately covers working at height then there is no need to repeat it. Depending on how a particular provider operates, then they may choose to incorporate the risk assessment in to their operating procedures or other similar document or system. This is quite acceptable as long as there is a suitable and sufficient assessment of the risks. The HSE publication "*Adventure activities centres: five steps to risk assessment*" (Guidance booklet, HSE Books 1999 ISBN 0 7176 2463 3) sets out one model that duty holders may wish to choose to follow but they are at liberty to adopt any other approach as long as it is suitable and sufficient.
29. Site-specific risk assessment – this may or may not be required depending on the site used. If a site does not have any particular risks

associated with it over and above those normally expected then a site-specific risk assessment is unlikely to be needed. If there is something out of the ordinary about a venue when compared to the generic risk assessment, then a site-specific assessment should be carried out, for example a sea level traverse will have the risks normally associated with climbing on rock present but there is a need to take account of the effects of tides – this would be the site-specific risk assessment. The findings may be recorded separately or as part of the operating procedures.

30. Dynamic risk assessment - it is acknowledged that in the climbing and caving work situation, where environmental conditions can rapidly change, where incapacity can occur or where technical problems can arise (e.g. entanglement in a rope) it is not possible for a risk assessment to anticipate every possible situation that may arise and so a significant element of dynamic risk assessment by the instructor will always be a feature, particularly in respect of the techniques and equipment utilised in any given set of circumstances. Any attempt at trying to assess every conceivable set of circumstances is likely to result in a document that is of very little practical use. This is why it is important for the instructor to be competent for the activity and the environment.
31. Small providers are common in this sector and they may not even have to have a written record of the risk assessment.
32. Summary – the following principles should be evident in the duty holder's risk assessment or operating procedures etc.
 - Avoid the need to work at height - work at height should be avoided where it is reasonably practicable and appropriate to carry out the work safely otherwise than at height, for example it is often possible for an instructor to remain at ground level when instructing much of a simple top roped climbing session whereas an instructor teaching lead climbing will have to work at height.
 - Where work at height cannot be avoided and in very many situations it will not be possible or appropriate to avoid it - prevent so far as is reasonably practicable any person falling a distance liable to cause personal injury by using either an existing place of work or by using work equipment to prevent a fall.
 - Where falls cannot be prevented - provide work equipment to minimise the distance and consequences of a fall.
 - Where the risk of a fall remains - provide additional training or take other additional suitable and sufficient measures to prevent a fall so far as is reasonably practicable.

Regulation 7 – Selection of work equipment

33. Equipment designed for climbing and caving activities and meeting appropriate standards will be suitable as work equipment in this context. Appropriate standards are in the EN series or those published by the UIAA (Union International des Associations d'Alpinisme). UIAA marked equipment is still common due to the long service life of some items. It is also possible that equipment originating in industrial settings e.g. travellers on a high ropes course may be encountered. As long as these are used and maintained in accordance with the manufacturer's instructions, then this is acceptable.
34. Summary – there is evidence that work equipment is selected with reference to the working conditions, the place of work, the distance and consequences of a potential fall, the duration and frequency of use, the need for easy and timely rescue in an emergency and any additional risk posed by the use of the equipment.

Regulation 8 – Requirements for particular work equipment

35. These provisions refer to the requirements for guardrails and toeboards, working platforms, collective safeguards, fall arrest systems, personal fall protection systems, etc. Some of these, e.g. provision of guardrails, will not generally be relevant or appropriate to work in the natural environment. They might be appropriate in built structures such as platforms at the top of abseil towers or on ropes courses where it might be reasonable to expect some guardrails to be provided on platforms depending on the circumstances. The requirements relating to the selection of personal fall protection systems will however be relevant. See detailed guidance on the schedules below.

Regulation 9 – Fragile surfaces

36. Fragile surfaces are commonly encountered in the more advanced adventure activities working environment, e.g. snow bridges or ice covered rock faces. It is clearly not practicable to protect or cover these in the way the Regulations envisage for example for a roof light. Nor is it either practicable or desirable to place signs at such sites.
37. The training of instructors to work in these environments is such that they are aware of when such conditions may be expected to occur, what precautions to take and techniques to use to minimise the risk or consequences of a fall. It may be possible in some circumstances to avoid such areas but in other circumstances there may be no option but to cross such a fragile surface. These situations are covered during the training and assessment of instructors and documented in training and assessment syllabi.

38. Summary - there is evidence of a system to manage risks from fragile surfaces, so far as is reasonably practicable using the principles of avoidance of risk, fall prevention or fall mitigation.

Regulation 10 – Falling objects

39. In climbing activities, items that may fall such as tools are normally secured to the user by a lanyard (although this presents an additional hazard in the event of a tumbling fall e.g. a winter climber using an ice axe may choose not to use a lanyard as this mitigates the risk of impalement). There is always a risk of an item such as a karabiner being dropped or a loose stone dislodged. It is expected that all participants in climbing and caving will use helmets as protection against falling objects where such a risk exists.
40. Summary – there is evidence of a system to prevent falling objects, so far as is reasonably practicable. There is evidence of suitable and sufficient steps being taken to prevent persons being struck by falling objects.

Regulation 11 – Danger areas

41. In adventure activities in the natural environment, it is often not practicable or acceptable to mark danger areas. Compliance with this regulation may be achieved by the giving of clear information or instructions.
42. Summary – there is evidence of a system that ensures workers have clear information or instructions about danger areas.

Regulation 12 – Inspection of work equipment

43. The duties under this regulation are essentially the same as those under PUWER and LOLER and the normal good practises and procedures of the sector for the inspection of equipment are an appropriate way of meeting these duties. This approach has been accepted by HSE in the past and is the approach accepted by AALA as part of its inspection of providers. It is the norm for equipment used in adventure activities to be inspected either before or after use, commonly this occurs at a stores at an outdoor centre but other practices may be acceptable. It should be possible for duty holders to demonstrate that these inspections are taking place – often there will be some form of written record. Climbing and caving equipment should generally not be subjected to testing which could cause damage to the item that may place a subsequent user at risk.
44. Where items of protection are put in place during a climb or a belay is established it will always be checked before a load is put on it. This check need not be recorded.

45. Summary - there is evidence of a system for appropriate inspection of equipment.

Regulation 13 – Inspection of places of work at height

46. It is considered that good practice as envisaged by NGB practices is sufficient compliance with this regulation in the natural environment. Where man made structures or actively managed natural sites are used, then a formal system of inspection may be required.

47. Summary - there should be evidence that places of work at height and any permanently installed fall protection measures are subject to appropriate checks.

Regulation 14 – Duties of persons at work

48. There is a requirement for workers to report activities or defects relating to work at height that may endanger the safety of themselves or other persons. This duty will commonly be discharged as part of the routine daily staff meetings that are common in the adventure activities sector. Other arrangements for the reporting of information may be acceptable.

49. Summary - there should be evidence of a system for the reporting of defects or activities that may affect safety of work at height. Workers are required to use equipment in accordance with their training and instruction.

Schedules 1,2 & 3

50. These schedules will not generally apply to adventure activities in the natural environment, however they may be appropriate for items such as abseil towers.

Schedule 4 – Requirements for collective safeguards

51. Collective safeguards (e.g. air bags) are not generally used in adventure activities.

Schedule 5 – Requirements for personal fall protection systems

Part 1

The normal accepted good practices of the relevant NGBs are compatible with this part.

Part 2

52. Climbing and caving where the rock is being ascended or descended is not work positioning. Following normal accepted good practices of the

relevant NGBs regarding ascent or descent on ropes is compatible with this part.

Part 3

53. Note – Paragraph 1 of Part 3 of Schedule 5 **only** applies when a decision has been made to use two ropes. It does not *automatically* require the use of two ropes. The normal accepted good practices of the relevant NGBs are compatible with this part when two ropes are used.
54. It is expected that the norm will be the use of a single rope as permitted by paragraph 3 of Part 3 or schedule 5. If a single rope is used, then no duty under paragraph 1 of schedule 5 arises. The NGBs and interested parties in adventure activities have gone to great lengths to demonstrate that the use of single ropes, which is very common, is as safe and often safer than the prescribed two-rope system in paragraph 1 of part 3 of schedule 5. This demonstration has been accepted by HSE. This does not remove the need for a provider to carry out a suitable and sufficient risk assessment of their own particular activities but they can legitimately cite good practice as set out by NGBs as an element of their risk control measures. Climbing and caving where the rock is being ascended or descended is not rope access or positioning, as it is the rock that is being moved on, not the rope.

Part 4

55. The dynamic ropes used in climbing and caving for fall protection will generally fulfil the function of a shock absorber.

Part 5

56. A belay may in some circumstances be intended to prevent the belayer moving into a position of danger and would therefore be a work restraint, if being used by a person at work. Good climbing and caving practice is compatible with this part.
57. Summary - there is clear evidence that personal fall protection systems are only used by appropriately trained persons, are of suitable and sufficient strength, fit the user and are appropriately adjusted to prevent the user falling or slipping from it. The system is to be appropriately anchored.

Schedule 6 – Ladders

58. Ladders are not often used in adventure activities and where they are, they are often flexible wire based ones used in caving.

ADVENTURE ACTIVITIES LICENSING AUTHORITY

59. It is likely that any provider of adventure activities involving work at height who holds a valid AALA licence is likely to be following good practice that is compatible with these regulations. Their safety management arrangements, risk assessments, the competences of staff etc. will have been considered as a part of the licensing process.

ACKNOWLEDGEMENTS

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Annex 1

Matrices of NGB qualifications and environments for caving and climbing are shown below. It should be noted that the names of NGB qualifications occasionally change and in cases of doubt, then reference should be made to the relevant NGB. Where there is no NGB for a sport, such as ropes courses or canyoning, then HSE has accepted that climbing or caving qualifications can be appropriate. Any duty holder should be able to explain what they consider appropriate for their particular operation and operating environment.

Caving

Hazard level	Group instructor/leader	Technical expert
Cave/mine systems with pitches over 18 m	Cave Instructor Certificate (CIC) holder	CIC holder
Cave/mine systems with pitches less than 18 m	As above, or Local Cave Mine Leader Assessment (LCMLA) Level 2	As above
Cave/mine system without pitches	As above, or LCMLA Level 1	As above
Show cave/tourist mines – adventure trips beyond public areas with made-up lit paths	As above, depending on level of activity	As above

Climbing

Hazard level	Group instructor/leader	Technical expert
Winter climbing	Mountaineering Instructor Certificate (MIC) or British Mountain Guides (BMG) Carnet holder or Aspirant Guide	MIC or BMG Carnet holder
Rock climbing – multipitch	As above or Mountaineering Instructor Award (Summer) (MIA)	As above or MIA
Ghyll scrambling, gorge walking or sea level traversing	As above or in-house assessed depending on level of activity	As above
Rock climbing – single pitch	As above or Single Pitch Award (SPA) or Rock Climbing Leader (N Ireland)	As above
Other climbing, abseiling or scrambling on man-made structures or natural features	As above or in-house assessed, depending on level of activity	As above

Notes

‘Winter’ means when winter conditions, including snow and ice, prevail or are forecast. This cannot be defined by a portion of the year. Summer means any conditions not covered under ‘winter’.

Annex 2

Membership of AAIAC WG

John Cousins (Mountain Leader Training UK)

Tom Redfern (British Caving Association / Association of Caving Instructors)

Marcus Bailie / Anne Salisbury (Adventure Activity Licensing Authority)

Charlotte Edward (Central Council of Physical Recreation)

Doug Jones (Mountain Leader Training UK)

Simon Waring (The Outward Bound Trust)

Brian Lamb (Institute of Outdoor Learning)

Ian Hey / Jon Garside (British Mountaineering Council)

Anne Vowles (Association of Mountaineering Instructors)

Appendix 1 Further reading

Guidance to the Licensing Authority on the Adventure Activities Licensing Regulations 1996. L77 HSE Books 1996 ISBN 0-7176-1160-4

Management of health and safety at work. Management of Health and Safety at Work Regulations 1999. Approved Code of Practice and guidance L21 (Second edition) HSE Books 2000 ISBN 0 7176 2488 9

Personal protective equipment at work (Second edition). Personal Protective Equipment at Work Regulations 1992. Guidance on Regulations 1992 (as amended) L25 (Second edition) HSE Books 2005 ISBN 0 7176 6139 3

Adventure activities centres: five steps to risk assessment Guidance booklet HSE Books 1999 ISBN 0 7176 2463 3

Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and guidance L22 (Second edition) HSE Books 1998 ISBN 0 7176 1626 6

Appendix 2 Useful Sources of information

HSE website falls section - <http://www.hse.gov.uk/falls/>

Guidance on various topics related to licensing has been compiled by the licensing authority and is available on their website; www.aala.org.uk

British Caving Association - <http://british-caving.org.uk/>

Mountain Leader Training UK - <http://www.mltuk.org/>