4. Law and Legislation

In this chapter we discuss relevant UK law as applicable in 2013. Many factors are international and where relevant this will be mentioned. The practices discussed are to be considered universally acceptable but must be taken into context and interpreted by the providers of the abseiling. Certain bodies are not represented and this is due to their having no relevance across borders or it may be due to their existence being transitory or under threat.

No attempt is made to discuss the full amount of information and detail available only what is pertinent and it is felt that the subject is so important that much effort has been made to make it readable rather than comprehensive.

HSE

The Health and Safety Executive is a UK independent watchdog responsible for maintaining and promoting workplace safety and health and who are also charged with investigating accidents. Their remit is wide and at the lower end is any incident that requires hospital treatment and at the other end are large, multi-fatality accidents.

They are much maligned but undeservedly so as many decisions are taken using their name in vain and it is wise to be mindful of this when considering a charity abseil. There is currently no reason not to consider an abseil from a building and there is sufficient legislation in place to adequately manage the risks involved.

Photo 15 Training and qualifications give people the skills to help others

The HSE also produce many useful documents and regularly review practices and it was one such review in 2003 that led to the implementation of the Working at Height Regulations (WAHR). This review made several interesting observations across a range of industries and identified '*competence, risk perception, compliance and operational equipment*' as being the most directly significant factors in falls from height.

Much of the report details incidents and accidents which are commonplace but bear very little relevance to charity abseiling. Indeed, charity abseiling is not mentioned at all as it was not commonplace ten years ago. Abseiling is mentioned once in the context of using specialists for access and abseiling and rope access companies were singled out as being generally safe. It is important to consider *competence and risk perception* separately as it clearly is a recognised

strategy to avoid incidents and accidents.
There is a lot to discuss regards equipment and compliance but an important question to consider if you are planning are charity abseil is, “are you competent?” It is said that we are born with two inbuilt fears; loud noises and falls from height but risk perception comes with experience and understanding that managing an urban abseil is not just about certification, shiny equipment and clever branding. It is not possible to legislate against incompetence but it can be identified and as an industry it is important charity abseilers adopt the highest professional and personal standards throughout.

WAHR

Working at height regulations were introduced in 2005 after much lobbying for exemption for the climbing and caving professions. This exemption was subsequently removed in 2007 and replaced with industry specific amendments. It was felt that working practices in the adventurous activities community were comprehensively regulated by the (then) AALA and the National Governing Bodies and that where appropriate the WAHR should apply. These amendments are discussed below but it is important to consider the legislation as a whole as these amendment make no mention of abseiling from buildings.

Falling from ladders was identified as the single biggest cause of accidents from height with more than half being due to ‘low’ falls. The regulations cover working from any height with no minimum height being stipulated as a fall from a chair can cause injury. The HSE define the remit of the legislation as including such heights as “where a person could fall a distance liable to cause personal injury”. It is important to understand that WAHR do not just apply to falls but to incidents resulting from working at height and these must be managed even in an urban abseil environment. For example the inclusion of guard rails. Obviously this is not practical at the abseiling edge but could be considered essential along other edges. If a risk of falling has been identified as hazardous then a guard rail should be included.

Also is a ladder required to access the roof? If so good practice would dictate that the ladder is held, signage is visible and that there is supervision also that if a fall is likely to cause injury that there are suitable safety systems in place.

Insert 3 The single biggest risk regularly faced at the top of a building is dropping a belay plate onto someone and I have certainly dropped mine onto the platform before. Using cord to secure everything is an obvious answer or devices such as an ab-rack or ID that can remain secured when in use.

WAHR apply to urban abseiling as much as they do to rope access and adherence to best practice is essential to avoid problems. Specific areas of risk are discussed in Chapter 7.

Amendments

In 2007 the WAHR were amended to include the outdoor industry as, it seems it was felt that to exempt one industry from the regulations would be inappropriate and, given different parameters the outdoor industry could comply with the WAHR.
The National Governing Bodies of climbing and caving set high standards and provided a comprehensive level of training and assessment as well as monitoring and best practice guidelines and it was acknowledged by the HSE that,

"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."

The amendments are specific to working in the outdoors however and it does put the charity abseiler in an awkward position between this industry and the rope access industry as the amendments clearly do not incorporate working on buildings. Where there is a lot of leeway in the amendments is in Regulation 5 – Competence. The world of rope access has a clear system in place with defined boundaries on working depending on your level of qualification but there is a great deal of scope within the amendments to allow for unqualified people to set up businesses.
Point 25 states: Summary - there is clear evidence that all persons involved in work at height are competent.
This is not necessarily the case and a proven track record of safety in the world of climbing is not the same as suitable experience to run abseils of buildings.

Industrial Rope Access Trade Association (IRATA)
The remit of IRATA is broad and it has many international member organisations and is a professional representative body for rope access and associated industries. It manages all industrial rope access practices including the administration of a qualification and monitoring scheme as well as having an investigative arm. It is global and compiles valuable information on incidents at height and ensures that proven working practices are adhered to and reviewed and, if necessary updated. The one arena where it has less of an influence is charity abseiling partly due to the 'two rope system' the body advocates. In practice this would be difficult to implement as the ropes are fixed and training is essential to avoid errors.
For a novice to comply with IRATA standards is an oxymoron but it would it be possible to apply them? The first element is the self-arresting descender – they are inherently safe and modern ones (see chapter 11) have overcome the panic reaction – it wouldn't be impossible to teach someone to use one in a fairly short amount of time. A fall arrester is more problematical as when used incorrectly will not lock and when locked needs skill to unlock. It might be considered within the IRATA remit to replace the second fixed line with a safety line operated from the top and incorporating a self-arresting device – the very same one as would be used by the abseiler. With this system it is perfectly feasible to see that it is possible for an IRATA Level 1 technician to be able to deliver charity abseiling whilst staying loosely within their remit. However it can be seen that this would be problematical to implement. Further information on qualifications and staffing can be found in Chapter 9.

More importantly the standards as laid down by WAHR that affect *every other aspect* of working at height are clearly defined and considered at all levels of the training and are very relevant to the charity abseiler. An IRATA technician will have received training in fragile surfaces, anchors, access, structural integrity and work place safety that is crucial for operating at this level.

National Governing Bodies in outdoor adventurous activities

There are a multitude of organisations within the UK and other countries that oversee and monitor the training and standards of activities which have a direct link with abseiling such as climbing and caving. It is to these bodies that the industry looks for support on guidance on all matters relating to the activities and each body will also look to a larger national organisation which will then be advised by the UIAA.

UIAA

This is the body responsible for (amongst other things) the independent testing of climbing equipment. They also advise national bodies on good practice and investigate incidents. They are the only standards recognised *worldwide* for climbing equipment and were the basis for the European Norm (EN) standards. A piece of equipment produced in compliance with the above directive can be further tested by the UIAA to assert whether it attains the EN standards for climbing. The UIAA act as technical advisors to the CEN.

CEN

The European Committee for Standardisation issue the EN numbers and is the statutory body charged with developing and reviewing harmonized standards for equipment.

ISO

This is the International Organisation for Standardisation which issues advice and standards for equipment manufactured internationally. The UIAA and does not independently test and certify ISO equipment but it is commonly used outside of Europe. The standard which is applied on the majority of equipment used in charity abseiling and PPE is: ISO 22159:2007

Personal Protective Equipment (P.P.E.)

The Personal Protective Equipment Directive (89/686/EEC) was introduced in 1992 and with subsequent amendments it is firmly part of European law. Personal Protective Equipment (P.P.E.) is a designation for any item of equipment which is part of the system for keeping a person safe. There are 3 categories:

1. 'Simple design' protecting from minor risks and mechanical impacts such as gloves and knee pads
2. 'Intermediate design' for serious risks such as helmets and high visibility clothing
3. Major or life threatening protection such as harnesses.

Category 1 items are very much a consideration not just for the people working the abseil but the abseilers themselves. Sunglasses, gloves, long trousers – all covered by this directive and there is a legal responsibility to ensure everything is done to protect persons on-site from minor injury. Often it is not possible to comply rigidly with the directive such as where an abseiler in a Pink Panther suit does not want to wear the gloves but in these instances the possible risks should be clearly pointed

out and other steps taken to mitigate these risk for example the belayer maintaining a little tension through the safety rope.
It is not the responsibility of the employer, however to supply these and it is normally expected that the people on the job have appropriate equipment.
Items of equipment within this category must conform to basic European health and safety requirements but there is no set standard to achieve.

Category 2 items are mandatory in certain working environments and the obvious example of this are helmets being worn within the drop zone.
These pieces of kit must conform to European standards and be independently inspected in order to carry the CE mark.

From the point of view of urban abseiling all equipment comes under Category 3 and these items are also monitored by an independent body and random samples are tested annually. If a product in this category carries the CE mark it will also carry be endorsed by the representative body of the industry and will carry the mark of the body that performed the quality control testing.

All P.P.E. must come with instructions on usage, care and maintenance and information defining its lifespan and limitation. As well as this all P.P.E. must undergo annual checks and there should be records of this available for inspection.
Additionally it is advised that all P.P.E. is checked on issue and return, prior to use, after use and every three months and that these checks are recorded. This might not seem practical but in practice a climber checks their equipment all the time and formalising that process is very little effort.
Some manufacturers have online tools which allow for this to be recorded and monitored and this is a failsafe way of ensuring that all legislation is complied with. As well as this manufacturers are very good at providing information on care and maintenance and a visit to any website will yield a host of excellent resources.

Testing
The UIAA issues strict guidelines on the testing of equipment and all methods used are easily accessible via its website. There are some interesting anomalies which are relevant to long drop abseils which will be discussed in the relevant section but it is important to state that self-testing is not necessary.
The act of testing causes destruction of the item tested and the results of which can only be applied theoretically to other similar item in similar condition. A good example would be cutting off two metres of rope from the end of your safety line which passes all tests however in the middle of the rope is a ‘nadge’ which would snap under load.

Regulation 12, 43 of HSE WAHR amendments states:
“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.”

Insert 4

After agreeing an event for a charity and submitting risk assessments the facilities manager requesting up-to-date testing certificates for all equipment. After admitting we didn't test the kit after manufacture we were asked to demonstrate the testing on the day. We explained this was not common practice but were prepared to buy brand new ropes and slings however this was not acceptable and the job was pulled.

It is important to differentiate between care and maintenance with testing and be as compliant with manufacturer's guidelines to assure the customer and to safeguard the abseilers and the industry as a whole.

5. Scaffold

Buildings are not designed for abseilers; there are no handy platforms on the roofs or easily accessible edges with well-placed bolts to which equipment can be attached. In recent times with the invention of steel reinforced concrete and the predominance of windows as a building's façade it has become necessary to construct railway systems for the window cleaner's *sky trolleys* and suitable 'man-safe' systems. With the advent of the rope access industry there is now greater consideration being taken during the construction stage to ensure that access to all aspects of the building is possible and protectable but only, of course by professionals. Dedicated people who are not afraid of heights and trust their equipment generally do not need scaffolding to ease their passage down the side of a building.
Many historic buildings are woefully ill-equipped with suitable anchors and the protection of our industrial heritage is a serious responsibility and should be considered a higher priority than abseiling off someone's legacy.

This chapter looks specifically at using scaffold platforms as it is not a skill that the average mountaineer or climber has actively sought out. It is always better to use professionals but very few scaffolders have experience in setting something specifically for abseiling and it should be considered a joint responsibility.

Health and Safety

The use of scaffolding is closely monitored by the HSE and regulated by the NASC (National Access and Scaffolding Confederation) with regular updates and publication of current standards. European standards are in place for the erection and management of scaffolding platforms and temporary towers and these should be accessed by anyone intending to employ them.

WAHR have already been discussed but also relevant is BS EN 12811-1:2003 which sets out the requirements for the general design of working scaffold. Although these are not strictly relevant to temporary structures the NASC commissioned the writing of TG 20:05 (Technical Guidance) based upon BS EN 12811-1 which provided a fully compliant document which was more applicable to general practice in the UK. The HSE have also published information on mobile access towers and give clear guidelines for working in this area and the NASC SG4 (safety guidance) gives clear notes on

the safe design of scaffold towers (see bibliography). Please note different regulations are in force outside of England and Wales.

Complying with the regulations is perfectly possible within the scope of the recommended safety guidance notes:

- SG4:10 5.2 – A scaffolder's 'safe zone' *must* comprise of a single guardrail, 950mm above the working platform on every façade from which a fall is possible.
- SG4:10 5.3 – When working within 1m of an exposed edge, scaffolders must attach fall protection.

It is easy to see that in most abseiling environments that the average mountaineer would no doubt clip on well before being 1m from the edge.
A scaffolder might well use a clip such as in Photo 19 which is large enough to clip directly to the bars. It is likely a climber would feel safer clipping into a rope system which is tied to two separate anchors.


Photo 19 Scaffold clip

WAHR stipulates that an inspection must be carried out prior to working at height and this is also considered necessary prior to designing and setting up a temporary scaffolding tower. Working to best practice is imperative at the building stage whether it is a self-build or one bought in and the HSE provide a handy checklist "when scaffold design is required and what level of training and competence those erecting, dismantling, altering, inspecting and supervising scaffolding operations are expected to have obtained."

Insurance needs to be considered at an early stage here, whose insurance covers what? Be very clear about this; if, after the initial installation a board comes loose during the event and falls and crushes someone it will invariably be the responsibility of the person managing the abseil. 'Normal' insurance does not cover for this and it can also be very expensive to get this kind of cover. Is there someone at the top of the building who is able to assess and repair scaffolding? We all know it is not rocket science but lacking an M12 spanner (Photo 20) might cause the event (and the scaffolding) to collapse. Is insurance in place to allow alterations to the scaffold? Also it is important to note that amateur or inappropriate wielding of tools might invalidate the insurance that comes with the scaffolding.

Photo 20 An M12 spanner

The questions that should be considered prior to agreeing to a job are:

- Is scaffolding necessary?
- Is scaffolding possible?

If there is good access, a safe working platform, solid and high anchors and a suitable take off it is not necessary to install a scaffold platform and often the event organisers are being mindful of the cost and see that this will detract from the funds raised. This is fair enough but in some cases it will be essential to install a platform and being skilled enough to identify this and brave enough to turn down a job should the organisers not want one is not a skill set that many possess.

It is fair to say that different companies have different guidelines for the installation of scaffolding so having a good working knowledge of what is possible is essential for any person performing a pre-event site inspection.
If a platform is necessary but not possible then the event cannot go ahead; access is important. Can the abseil area be accessed *safely* by workmen with no specialist training or equipment and without additional support?
Although scaffolders are incredibly resourceful when it comes to accessing difficult areas they are not rope access workers and even climbing over a wall might put them out of their safe working environment. Look at the approaches to the abseiling area and if it is safe enough for people to access generally then it is fair to say it is safe enough for scaffolders. Some exceptions might include historic buildings with narrow, winding stairs or where the access is up into a roof space involving a ladder.

Next to consider is whether it is possible to safely attach the scaffold to the building. They are never attached directly but oppose the forces usually placed upon the structure.

It is essential to correctly fix the platforms to the building and having a good knowledge of scaffold equipment makes this a lot easier. Knowledge of buildings and materials is also essential to ensure that the platform is fixed to appropriate load bearing structures and to avoid damaging the fabric of the building which could prove very costly. Many building managers will have very clear ideas on what they expect and it is important to ensure that they are consulted throughout the process.

Insert 5

One event that I worked had six abseil platforms built that were two metres high. None of these were secured and on arrival we had to tether them using the rigging ropes. This meant that they were 'safe' but wobbled and leaned alarmingly as people abseiled. This meant a greater number of rescues were required as people got so far over the edge and freaked out.
They were clearly outside of NASC best practice guidelines.

A final consideration is whether the platform is accessible to the public. On the roof of a large, corporation this is unlikely but if there is a risk then reasonable measures should be taken to discourage and hinder access as it could lead to a member of the public causing themselves harm. Although it could be argued that this is a personal responsibility if it can be shown that had the scaffold platform not been there and the accident would not have occurred then the person responsible will be held liable.
Ensure access methods are restricted or removed and put clear signage to keep off the structure.