

QBE INSURANCE ISSUES FORUM

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QBE



WORKING AT HEIGHT

OVERVIEW

Falling from height is the number one cause of fatal injuries to workers. It accounted for 53 of the 220 work-related fatalities in 2004/05. Falls from height are also a significant contributor to major injuries, accounting for 3,783 (13%) of the 30,213 reported in 2004/05.

The perception of work at height is that it often relates to tasks such as roof work or scaffolding. Whilst this is true to an extent, it is perhaps surprising that 59% of major injuries occur following a fall from height of less than two metres and 61% of over 3 day injuries occur within the service industry.

These statistics highlight that all industries are exposed to risks of falls from height. In this Issues Forum we examine the main agents and causes of these falls and suggest practical controls to assist with compliance to the Work at Height Regulations 2005.

IMPACT ON INDUSTRY

Health and Safety Executive statistics demonstrate that higher hazard industries produce the most severe falls from height but that the greatest incidence is within "lower hazard" industries. In 2004/05,

FATAL ACCIDENTS

- Of 53 fatal accidents, 53% occurred in the construction industry, 13% in manufacturing, 9% in transport and 13% in other service industries. Agriculture accounted for the remaining 12%.

MAJOR INJURIES

- Of 3,783 major injuries, 32% occurred in the construction industry, 15% in manufacturing, 14% in transport and 36% in other service industries. Agriculture and extraction/utilities accounted for the remaining 3%.

OVER 3 DAY INJURIES

- Of 4,604 over 3 day injuries, 18% occurred in the construction industry, 18% in manufacturing, 21% in transport and 40% in other service industries. Agriculture and extraction/utilities accounted for the remaining 3%.

The main agents behind these accidents were as follows.

- Fatal accidents – 23% roofs, 19% ladders and 19% vehicles.
- Major Injuries – 31% ladders, 28% other building access equipment and 21% vehicles.

The above agents give some steer to the main risk areas an employer should focus on to reduce the number and severity of falls from height. However, this data does not indicate the root cause behind the falls. This may often be attributed to a slip, trip or behavioural issue such as an employee not following a safe system of work.

To effectively manage falls from height it is evident that robust health and safety management systems are required.

INSURANCE IMPACT

The impact of falls from height on insurance costs can be significant e.g. the costs associated with a young person who is rendered paraplegic from a fall can extend to millions of pounds. Excluding the largest losses, in 2005 QBE settled circa 530 fall from height claims, at a cost of circa £7.9M. This gave an average claim value of £14,900.

A fall from height is often due to poor physical control over an activity or environment and management failings. In recent years QBE have defended circa 22-24% of fall from height claims. This demonstrates that such claims can be defended if management have in place all reasonable and appropriate controls, but also that the opportunity to defend these claims is often limited.

As all businesses are exposed to the agents affecting falls from height and have the potential for catastrophe risk, QBE recommend policyholders create plans to assess their work at height risks.

LEGAL DUTIES

Notwithstanding employers' and employees' duties under the Health and Safety at Work Act and Management of Health and Safety at Work Regulations, in April 2005 specific Work at Height Regulations (WAH) were introduced. These consolidated elements of the existing Workplace (Health, Safety & Welfare) Regulations, the Construction (Health, Safety and Welfare) Regulations and Provision and Use of Work Equipment Regulations (PUWER).

A key part of the WAH Regulations was the removal of the two metre rule and its replacement with a requirement to assess risks where 'a person could fall a distance liable to cause personal injury'. This includes falls from any height and also those from ground level in to hazards like cellars or inspection pits.

The WAH regulations require best management practice. Insureds need to ensure their health and safety management system:

- enables them to plan all work at height
- applies the 'hierarchy of control measures' (see figure 1)
- selects the right people and equipment for the task
- trains persons doing the work
- inspects and maintains equipment used
- ensures supervision and monitoring of work as per the plans set out

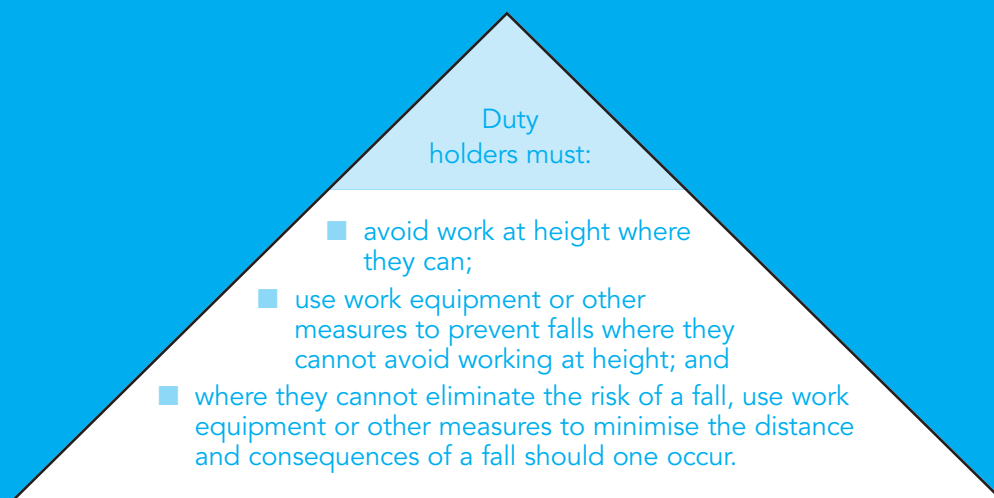


Figure 1, "Hierarchy of Control Measures" to consider during an assessment.

With regard to legal liability the WAH regulations impose an absolute duty to manage the risk by consistent use of the word 'shall' with regard to aspects such as planning, competence and supervision. 'Reasonably practicable' only appears in relation to the fact that work at height must be 'carried out in a manner which is so far as is reasonably practicable safe'.

If there is the opportunity to defend a fall from height claim, QBE will need to critically examine whether it was not reasonably practicable to apply a better control measure, in line with the hierarchy of control.

PRACTICAL CONTROL MEASURES

In the following examples, some of the main risks of falling from height have been highlighted alongside the controls to be considered in line with the above hierarchy. These should only be viewed as generic guidance. A specific risk assessment of individual circumstances will need to be undertaken.

FALLS FROM VEHICLES

Avoidance of work at height	<ul style="list-style-type: none"> ■ Change from top loading of tankers to bottom loading ■ Use mechanical equipment to load vehicles
Prevention of falls	<ul style="list-style-type: none"> ■ Fit guard rails to prevent falls ■ Use access equipment or design gantries or loading bays to prevent falls ■ Consider the installation of non slip surfaces to prevent falls ■ Employee training e.g. maintain 3 point of contact when accessing and descending from vehicle
Minimise consequence of fall	<ul style="list-style-type: none"> ■ Consider work restraints, fall arrest equipment and matting or netting where prevention devices are not 100% effective

ROOF WORK MAINTENANCE

Avoidance of work at height	<ul style="list-style-type: none"> ■ Gutter clearance using ground operated suction equipment
Prevention of falls	<ul style="list-style-type: none"> ■ Access roof from appropriate mobile elevated working platform ■ Provide edge protection ■ Cover and protect roof lights ■ Mark fragile roofs and use appropriate roof ladders and crawling boards ■ Ensure scaffold design is suitable for the work being undertaken and for materials to be brought on to roof
Minimise consequence of fall	<ul style="list-style-type: none"> ■ Consider work restraints and fall arrest equipment

LADDERS AND STEP LADDERS

Ladders, step ladders and other equipment such as kick stools neither prevent nor mitigate the consequence of a fall. Accidents from such equipment could expose the Insured to allegations of not having considered the hierarchy of control measures. In the event of an accident, the Insured may need to demonstrate why it was not reasonably practicable to have avoided the task all together or why more appropriate equipment e.g. cherry pickers, tower scaffolds, platform steps with guard rails etc could not have been used.

Guidance within HSE INDG402, 'Safe Use of Ladders and Stepladders' states that a ladder or stepladder should only be used:

- In one position for maximum of 30 minutes
- For light work - carrying less than 10kg
- Where a handhold is available
- Where you can maintain 3 points of contact with the ladder e.g. both hands and one foot

Whilst this is sensible guidance for ladders used for simple tasks of short duration QBE would recommend you exercise caution on routinely applying the 30 minute and 10kg guidance. All ladder work should be subject to a risk assessment, as in legal liability terms the hierarchy of control within the regulations will take precedence over this guidance.

When determining that ladders and stepladders are the most appropriate equipment for the task Insureds should ensure users are provided with training and that safe working procedures are established. As a minimum this could be in line with IND(G) 405, 'Top tips for ladder and stepladder safety':

- Inspect ladder before use
- Secure ladder and ensure it cannot slip
- Ground should be firm and level
- Ensure ladder angle of 75 degrees (1 unit out for every 4 units up)
- Maintain 3 points of contact
- Do not work from the top 3 rungs
- Ensure ladder extends 3 rungs or 1metre above the place of landing to which it provides access
- Do not use step ladders side on

MISCELLANEOUS TASKS – GENERIC CONTROLS

<p>Avoidance of work at height</p>	<ul style="list-style-type: none"> ■ Use long handled tools e.g. when opening windows or vacuuming dust in a bakery ■ Consider window cleaning by 'reach and wash' system ■ Shrink-wrap pallet at ground level rather than sheeting a load on vehicle ■ Manufacture beams that allow edge protection to be installed at ground level before they are lifted in to position
<p>Prevention of falls</p>	<ul style="list-style-type: none"> ■ Utilise an existing safe place of work at height before considering additional equipment ■ Make safe existing structures with suitable edge protection ■ Design edge protection to create permanent barrier e.g. roll over barriers when lifting goods onto mezzanine ■ Use correct mobile elevated working equipment such as cherry pickers, scissor lifts and platform steps or erect scaffolds, tower scaffolds etc. ■ When shelf stacking place heavier items on lower shelves
<p>Minimise consequence of fall</p>	<ul style="list-style-type: none"> ■ Consider collective protection over personal protection e.g. netting is collective but fall arrest is personal
<p>Take other suitable and sufficient measures when prevention and mitigation of falls is not reasonably practicable</p>	<ul style="list-style-type: none"> ■ Training e.g. ladders, tower scaffold erection ■ Warning notices e.g. fragile roofs ■ Designate edge with highly visible painted lines and appropriate lighting e.g. rail platform edges or vehicle inspection pits when boarding and fencing is not practicable ■ Suitable fall arrest rescue procedures are in place

CASE STUDIES – ACCIDENT EXAMPLES

Unsecured Steps

A mechanic had completed a routine service and repair on a drill rig. He had collected his hand tools together and was getting down. With tools in each hand he stepped down from the platform and onto the vehicle tracks. He then stepped across to the unsecured access steps. The steps fell as he stepped on to them and he fell to the ground between the steps and the drill rig.

Anti Slip Device of Ladder Inadequate

A maintenance fitter carrying out routine work was using a ladder to access a ventilation duct in a production area of a pharmaceutical company. The ladder was not secured but had suction pads attached to the feet to prevent slipping as it was thought that this would save having a second person present while the task was being undertaken.

However the ladder did slip down the wall and ended up flat on the ground. The employee broke both wrists, and one had to be pinned. The accident investigation found that the smooth floor, necessary for hygiene standards in the production area, had compromised the performance of the suction pads.

Unsecured Window Cleaner's Ladder

A window cleaner sustained broken ribs, fingers and a broken arm when he fell 2.3 m from his ladder while cleaning the windows of a show home on a new housing estate. The ladder was not secured or footed, the ground was dry but sloped gently away from the building. The construction company had not produced a method statement and the injured man had received no health and safety induction when he arrived on the site.

Inadequate Working Platform on Food Process Machine

A food production operative fell into a rotating drum on a production line and broke both wrists and one leg. She was attempting to clean the machine. Working on top of the machine was common practice due to the absence of a safe system of work for adequately cleaning the machine. The top of the machine did not represent a safe working platform and there were no provisions to prevent falls from height.

Unprotected Loading Ramp

An operative fell off the loading ramp, whilst being given instruction by a colleague on the use of a palm computer and how to download data from an excavator. He was standing on the ramp alongside the machine and it appears he stepped backwards and fell to the ground. He was escorted to the canteen and then to hospital where a subsequent medical examination confirmed he had suffered a fractured hip.

Unprotected Roof Light

A warehouse operative suffered severe head injuries and died after falling 11m through a roof light while inspecting the roof for sections which needed repairing. He was examining roof lights installed on the warehouse roof when he tripped and fell onto the roof light. The roof light broke under his weight and he fell to the concrete floor below.

No Provision of Access Equipment in Stationery Cupboard

A teacher needed to retrieve items of stationery from a top shelf in a store cupboard. No stepladder was available so she used a small table that was in the store. Once on the desk she found the items she needed were further along the shelf than she'd realised. As the desk had other papers and books on it, she didn't want to descend, remove the other items on the desk and re-position it. She over-reached for the items from her existing position, lost her balance, fell and fractured a wrist. She was off work for two weeks.

CONCLUSION

All of the accidents described had individual, and organisational costs associated with them. HSE statistics show that falls from height are the main cause of workplace fatalities and the risk affects all industries. The Work at Height Regulations introduces a requirement to assess work at all heights i.e. where a person could fall a distance liable to cause personal injury.

With a clear hierarchy of control measures and need for effective management procedures within the regulations QBE recommend all policyholders formulate strategies that identify all tasks where employees work at height and seek to avoid such work or introduce equipment or procedures that prevent falls or minimise the consequences of falls.

FURTHER INFORMATION

More information can be found on the HSE website:

PUBLICATION	DOWNLOAD
IND(G) 401 Working at height a "brief guide"	www.hse.gov.uk/pubns/indg401.pdf
HSE Height Aware Campaign	www.hse.gov.uk/falls/campaign/materials.htm
IND(G) 402 Safe use of ladders and stepladders	www.hse.gov.uk/pubns/indg402.pdf
IND(G) 405 Top tips for ladders and stepladders safety	www.hse.gov.uk/pubns/indg405.pdf
IND(G) 395 Avoiding falls from vehicles	www.hse.gov.uk/pubns/indg395.pdf
IND(G) 367 Inspecting fall arrest equipment	www.hse.gov.uk/pubns/indg367.pdf
HSC Falls from Height Statistics	www.hse.gov.uk/statistics/pdf/rhsfall.pdf
LAC85/9 Working at Height Car Transporters	www.hse.gov.uk/lau/lacs/85-9.htm

Please speak to your Liability Risk Manager, Claims Inspector or regular QBE contact should you require further information.

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Jonathon Lawrence started at QBE in 2001, and has been working in the insurance industry for the past 17 years. His specialism is the field of health & safety management systems, and he has worked with a diverse range of clients in all types of industry to assist in reducing their risk exposures and mitigating losses. Jonathon is a Chartered Member of the Institution of Occupational Safety & Health (IOSH).



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