HSE

Health and Safety Executive

TOPIC INSPECTION PACK

FALLS FROM HEIGHT

January 2007

SECTION 1 - BACKGROUND INFORMATION AND STATISTICS

1.1 What are Falls from Height?

The Work at Height Regulations 2005 (WAHR) define work at height as being work in any place, including a place at or below ground level, (including access and egress from such a place of work) where if measures required by the Regulations were not taken, a person could fall a distance liable to cause personal injury.

Precautions are needed where there is a risk of injury from a fall irrespective of fall height. The Regulations require risk assessment to decide whether precautions are needed and in what form. Precautions are expected where there is a risk and in 9 times out of 10 this will be the provision of fall prevention in the form of guardrails. For low falls i.e. falls below head height, duty holders should assess the risk and provide sensible precautions that reflect the risk. Low falls should be dealt with where they are matters of evident concern (e.g. a narrow working platform less than head height alongside a production line particularly if a person has to work with their back to the open edge or a fall below head height onto an uneven surface containing sharp edges or protrusions. A risk assessment should conclude that fall prevention should be required in both situations as there is a risk of injury if a person was to fall).

Over half of the major injuries reported are due to low falls. Duty holders should move away from thinking high and low falls. They should think **all** falls and take precautions where there is a risk of injury from a fall. Any culture that thinks no risks exist below head height should be challenged.

Slips and trips on the same level are not treated as a fall from height, see the Slips and Trips Topic Inspection Pack.

1.2 Nature of the Problem and Statistics (Overview)

Falling from a height continues to be the most common kind of fatal injury to workers, accounting for 22% of fatalities in 2005/06. However, the number of fatal injuries of this kind decreased in 2005/06, from 53 to 46, the lowest on record. High falls have reduced to 26, from an average of 48 per year over the past five years.

In 2005/06, there were 24 fatal injuries as a result of falling from height to workers in construction, a decrease of 4 from 2004/05. 13 were as a result of high falls.

There was a decrease in the number of major injuries due to falling from a height in 2005/06 to 3351 compared to 3799 in 2004/05. Of these, 66% (2202) were as a result of falling from below head height.

Falls below head height therefore continue to be a significant problem in terms of both fatal and major injuries.

This inspection pack is designed to help inspectors target the topic area so that duty holders manage risks and continue to reduce the rate of accidents as a result of falls from height.

Fatal accidents to workers in HSE and LA sectors 2004/05

Agriculture	6
Manufacturing	7
Construction	28
Retail	0
Hotels and Restaurants	2
Transport	5
Offices	4
Other Services	1
Total	53

Major Injuries

Fall injuries in 2004/05 represented 12.5% of all reported major injuries to employees (fourth most common kind of major injury, behind slips/trips, handling, and struck by moving objects).

Major injuries for main HSE Sectors 2004/05

Agriculture	90
Extraction/Utilities	51
Manufacturing	638
Construction	1343
Transport	592
Education/Health	199

Major injuries for main LA Sectors 2004/05

Retail	384
Office	421
Hotels & Restaurants	65

Causes of falls from height

The main cause of **all injuries** from FFH is people falling from ladders.

HSE and LA enforced sectors 2004/05 for all workers (employees, self employed) and all heights (High, low and unspecified)

	Fatals	Major
Ladders	10	1337
Roofs	12	179
Scaffold	6	317
Work area/platforms etc	11	566
Vehicle/plant	13	883

High and Low falls
Figures for 2004/05 show a total of 37 fatal accidents attributed to high falls (above head height) to workers in HSE and LA enforced premises and 7 fatals attributed to low falls (below head height). Major injuries due to high falls in 2004/05 numbered 1060 and low falls 2423. Trends indicate that the major injury rate for high falls has fallen since 1998/99 but the incidence of low fall major injuries has increased.

1.3 Inspecting Construction Work

Non Construction Inspectors should, as part of the Fall From Height topic inspections, deal with procurement, management and control of contractors who carry out work at height at premises they inspect. This will include roofers, minor building work, electrical contractors, cleaners and plant repair specialists. See Target area 3 ‘Systems for the procurement and control of contractors’ (Section 2.4) and ‘Inspection Checklist’ (Section 7)

For advice on non-CDM and reactive work and matters of evident concern refer to OM 2002/08. (LA inspectors can refer matters of evident concern to their ELO if they are outside of their area of enforcement)

1.4 Falls from vehicles

Falls from vehicles during loading/unloading, getting into and out of the cab are covered by the Workplace Transport programme. See the Workplace Transport Inspection Pack for more information on this. In such circumstances, the work should be recorded using the Workplace Transport Risk Control Indicator (RCI). Section 4 contains some sector guidance on the road haulage industry. See the information under the heading CACTUS.

The falls from height pack will cover falls involving vehicles used for access e.g. a lorry mounted MEWP (Mobile Elevating Working Platform) or a working platform on a forklift truck.

1.5 Contacts for Information

The HSE contact for cross sector falls from height issues is the Safety Unit, Manchester, VPN 516 8200. Sector specific falls from height queries should be addressed to the relevant sector. LA inspectors should address any queries via their ELO.

Free information sheets and leaflets quoted throughout the pack should be available from the HSE Website.

1.6 The Work at Height Regulations 2005 (WAHR)

The Regulations came into force on 6 April 2005. They replace those parts of the Construction (Health, Safety and Welfare) Regulations 1996 and some parts of the Workplace (Health, Safety and Welfare) Regulations 1992 and other legislation, which deal with falls and falling objects. One set of Regulations now covers the risks from work at height across all sectors of work in the UK.

Schedule 8 of the Regulations lists the revocations. The Regulations can be downloaded from the HMSO website. Search using Statutory Instrument number 735.

SECTION 2 - GUIDANCE ON THE MANAGEMENT OF THE TOPIC AREA

2.1 Introduction to the Risk Control Indicators

This section contains guidance on the management of the topic area. It contains guidance on the risk control indicators that are the cross sector target areas for action that inspectors should enquire about during visits. They are a key means of assessing duty holders ability to manage work at height and are usually the main underlying cause of accidents. Guidance on Initial Enforcement Expectation (IEE) is also included.

The three risk control indicators (cross sector target areas for action) are summarised in the following table.

Target Area 1	Identification of activities and precautions involving falls from height	Work in any place where there is a risk of a person falling a distance liable to cause personal injury, including maintenance, cleaning and repair, has been identified and workers instructed in precautions; access points to fragile surfaces marked.
Target Area 2	Selection, use and maintenance of equipment	Appropriate access equipment is provided, is well maintained and regularly inspected and used.
Target Area 3	Systems for the procurement and control of contractors	Managers know how to screen potential contractors (in line with the principles of CDM) and actively monitor their work.

See Section 7 ‘Inspection Checklist’ for a summary of this section.

The risk control indicators are reflected in the main requirements of the Work at Height Regulations 2005 (WAHR) namely to organise and plan work at height, ensure competence of all involved, ensure risk avoidance, appropriate selection of work equipment and appropriate inspection of work equipment used for work at height.

2.2 Target Area 1

Duty holders should identify work at height where there is a risk of personal injury from a fall and ensure that appropriate precautions are provided to control the risk. If work activities have not been identified, the duty holder will not be in a position to ensure risks are adequately controlled. Non-routine work such as cleaning, repair and maintenance should be considered as well as routine work. Workers should receive suitable instructions and training so they understand the precautions that need to be taken. Para 2.2.2 of this section covers issues in relation to fragile surfaces.

2.2.1 Identification of activities and precautions involving falls from height

Key References: The Work at Height Regulations 2005, A brief guide INDG 401 and OC 200/31; 'Work at height: The basics' Information sheet 1 (Height Aware Campaign) available from HSE falls from height website; 5 Steps to Risk assessment INDG 163(rev 2); Management of H & S at Work Regulations 1992 and ACOP L21;

Risk assessment is the means by which work at height activities and precautions should be identified. Consideration of the hierarchy which is found in Regulation 6 (WAHR) is a key part of the risk assessment and decision making process as to how to work safely. When considering the hierarchy (see paragraphs (a) to (d) below), the duty holder has to ask themselves the following questions in order to **identify work at height activities and ensure adequate precautions are taken.**

(a) Can the need to work at height be **avoided** in the first place?

Long handled tools can be utilised from ground level thereby removing the need to work at height e.g. long handled vacuum cleaners to clean dusty surfaces from ground level. (The MSD risks from using such tools will need to be considered in relation to the falls risk when deciding whether to use such tools) Vacuum filling elevated hoppers from ground level can remove the need to access height to fill hoppers. Shrink-wrapping pallets at ground level can remove the need to sheet vehicles, which would otherwise involve work at height. Building structures at ground level and lifting them into position on completion, can avoid some work at height tasks. Can windows be cleaned from a safe position inside the building? (Reference Regulation 16, Workplace (Health, Safety & Welfare) Regulations 1992). Windows, which pivot so that the outer surface can be turned inwards for cleaning, will avoid the need for work at height during cleaning. The use of water fed poles to clean windows from ground level can also avoid work at height. See Section 4 for Sector guidance (CACTUS).

(b) If avoidance is not reasonably practicable, the duty holder should consider the next stage of the hierarchy which is **fall prevention**.

Can a fall be prevented by utilising an existing place of work?

An existing place of work is an existing building or structure including its means of access and egress from which there is no risk of a fall occurring. Work equipment is not required to prevent a fall because the existing place is already safe. e.g. a flat roof with a parapet or permanent guardrail around the peripheral edges, a silo with fixed guardrails around the top, etc. Duty holders should identify work that can utilise a safe existing place of work. (Reference Schedule 1 WAHR) If such a place cannot be utilised or created then the duty holder needs to utilise work equipment to prevent a fall. This includes the use of temporary guardrails and other work equipment which ensures fall prevention e.g. scaffolds, tower scaffolds, MEWP's etc.

(c) If fall prevention is not reasonably practicable or measures outlines in (b) above do not eliminate the risk of a fall occurring, then the duty holder should **mitigate** the effects of a fall.

Can work equipment be used to minimise the distance and/or consequences of a fall?

Work equipment such as nets, airbags, fall arrest systems etc minimise the distance and/or consequences of a fall.

(d) Finally if it is not reasonably practicable to prevent or mitigate the effects of fall, duty holders should identify and provide **additional training and instruction or take other additional suitable and sufficient measures to prevent** a fall.

Can additional training, instruction and other suitable and sufficient measures be taken to prevent so far as is reasonably practicable, any person falling a distance liable to cause personal injury?

Ladders and stepladder use can be justified using the bottom of the hierarchy providing the user has been trained and instructed in the selection and safe use of ladders and systems are in place to ensure ladders are maintained and inspected. Ladders do not prevent a fall or mitigate a fall but if used by trained operators in appropriate circumstances i.e. low risk and for short durations, their use can be justified. The bottom of the hierarchy can be used to justify safe systems of work and other precautions that constitute other suitable and sufficient measures. e.g. designating an edge with lighting when it is not reasonably practicable to provide guard rails e.g. split-level floors in retail premises. Providing high visibility painted lines to designate a railway platforms edges or MVR inspection pits and providing handholds and footholds to access a vehicle are examples of taking additional suitable and sufficient means to prevent a fall.

Each level of the hierarchy is qualified by SFAIRP. Duty holders must be able to demonstrate that it was not reasonably practicable to adopt a work method higher up the hierarchy than the precaution they are adopting or propose to adopt for work at height activities.

When carrying out a risk assessment, the duty holder should identify work carried out at height, including work that is intermittent, incidental or ancillary to the main activity. Often people are not aware that they are working at height. Remember almost 2/3 of major injuries are low falls. It is therefore important to identify the risks and ensure reasonable precautions. Peripatetic work and the 'odd job person' should not be forgotten. The duty holder should be able to say how in practice these jobs are carried out and what equipment is used. If any parts of the building have been built recently then the CDM Health and Safety file (which should give information on safe maintenance) should be available.

It is frequently the case that work at height is carried out by unsupervised workers and therefore it is important that the risk assessment should lead to identification of training needs e.g. in safe erection, inspection, use and dismantling of equipment.
When organising and planning work at height duty holders should identify necessary precautions for emergency and rescue. Duty holders need to consider reasonably foreseeable situations such as stuck MEWPS, high bay order pickers and other work equipment and deployed fall arrest equipment and plan for emergencies and rescue. Reliance on the emergency services is not acceptable. The duty holder creates the risk so they should manage it. Section 2.3.10 covers rescue systems. Contingency plans should be in place to suspend work at height when weather conditions such as high wind speed could jeopardise the health and safety of workers.

IEE
Where there is evidence that people need access to, or carry out work at height, the fall from height risks have not been identified, and appropriate precautions are not being/likely to be taken, the Initial Enforcement Expectation (IEE) is an Improvement Notice. The Notice may require a risk assessment to identify: work involving the fall from height risk and precautions that are appropriate to the work and the risk. A separate Improvement Notice requiring the precautions to be implemented may also be served at the same time. See Section 6 for a template Notice requiring a risk assessment to identify the risk and precautions.

2.2.2 Fragile surfaces

Key references: pages 33 - 38 Health and safety in roof work HSG 33;
Signpost to the Health and Safety (Safety Signs and Signals) Regulations 1996: INDG 184 L; Advisory Committee for Roof Work: Materials Standard: ACR [M] 001:2005 Test for non-fragility of profiled sheeted roofing assemblies [third edition]; Advisory Committee for Roof Work: Guidance Note for Safe Working on Fragile Roofs ACR [CP] 002:2005 (both available from the Advisory Committee for Roofwork http://www.roofworkadvice.info); Working on Roofs INDG 284.

A fragile surface is a surface that would be liable to fail if any reasonably foreseeable loading were to be applied to it.

Where work takes place, duty holders should identify all fragile surfaces (e.g. asbestos cement sheet, plastic sheet, corroded metal sheet, glass, wood, wool slabs, roof lights, bridged materials in silos, crusted surfaces of sludge lagoons) and fix warning notices at the access points to these areas. Where it is not reasonably practicable to affix warning notices, persons should be made aware by other means such as making sure workers and contractors are made aware of their presence so adequate precautions are taken including the use of permit to work systems.

Work on or near fragile surfaces should be carefully planned. Using the principles of the hierarchy discussed in 2.2.1 above, where possible work on, from or near fragile surfaces should be avoided eg by using a MEWP or tower scaffold to access the work from underneath. If this is not reasonably practicable a fall should be prevented by utilising work equipment such as guardrails, working platforms and coverings. (See Section 2.3.4 on General scaffolds for dimensions of guardrails) Where the risk of a fall remains, work equipment that mitigates the fall should be used eg nets, airbags or personal fall arrest systems.

Easily accessible permanently fixed access ladders should be blocked off (e.g. by boards over rungs) when access is not required. An alternative is to have removable bottom sections.

At valley or parapet gutters used for access, fixed covers should be provided. They should extend far enough up the roof to prevent anyone falling against them from falling through the roof (normally they should extend up to 2 metres, depending on the pitch of the roof - shallower pitches need more extensive coverage than steeper ones).

For any re-roofing/roof repair work, consideration should be given to using materials that are not fragile.

IEE

Where access to fragile roofs, or parts of roofs (e.g. skylights) is needed or foreseeable (e.g. for cleaning valley gutters) but warning signs are not provided at access points and it is reasonably practicable to provide them, the IEE is an Improvement Notice. See Section 6 for a template Notice.

Where work is being carried out on fragile surfaces and platforms or coverings have not been provided to support the weight of a person; or where people have to work near / pass over or near such surfaces, and guard rails or coverings have not been provided the IEE is a Prohibition Notice and consider a pre harm prosecution, See Section 7. See Section 6 for a template Notice.

2.3 Target Area 2

Duty holders should ensure that appropriate access equipment is selected and that it is well maintained and regularly inspected. Regulation 7 (WAHR) sets out the criteria that should be used when selecting work equipment for use during work at height.

SELECTION, USE AND MAINTENANCE OF EQUIPMENT

2.3.1 General

Key References: The Work at Height Regulations 2005, A brief guide INDG 401 and OC 200/31; 'Selecting equipment for work at height' Information sheet 2 (Height Aware Campaign) available from HSE falls from height website; Health and safety in roof work: HSG 33; Provision and Use of Work Equipment Regulations 1998 ACOP and Guidance (L22); The Provision and Use of Work Equipment Regulations 1998; Health and Safety in Construction: HSG 150 (3rd edition); Working on Roofs INDG 284;

When selecting work equipment duty holders should give collective protection measures priority over personal protection measures. Collective measures protect more than one person. They are passive systems in that they do not require any action by the person at the work position. Examples include guardrails, tower scaffolds, MEWP's etc which provide collective fall prevention. Nets and airbags constitute collective fall mitigation measures

Personal protection measures as the name suggest, only protect the user or wearer. They are active systems that require donning, adjustment, clipping on etc. They are far more onerous in terms of training, inspection and maintenance. Work restraint is a personal fall prevention system (User is physically prevented from reaching an edge by using a harness and a lanyard). Fall arrest is a personal fall mitigation system.

The hierarchy and Regulation 7 (WAHR) require collective fall prevention systems to be considered before collective mitigation measures and then personal fall prevention systems before personal fall mitigation. However, personal fall prevention (e.g. work restraint) should be given priority over collective fall mitigation.

Regulation 7 includes a list of principles that should be taken into account when selecting work equipment used for work at height. They include the following.

Working conditions. Slopes, poor ground, obstructions and traffic can determine the choice of work equipment. e.g. a MEWP could reach over bad ground or obstructions as long as its stability was not compromised. A MEWP may be preferable to a tower in such circumstances.

Distance to be negotiated for access and egress. Ladders are likely to be less suitable for higher access. Provide fixed access stairs or towers with integral stairs for higher access.

Distance and consequences of a fall. A fall arrest lanyard would be unacceptable if the deployment length of the lanyard and energy absorber were greater than the fall height. The user would hit the floor before the system could deploy. Nets and airbags become less reliable in terms of preventing injury the higher the fall. Alternative work equipment should be selected in such circumstances. i.e. fall prevention.

Duration and frequency of use. Long duration higher frequency work can justify a better standard of fall protection e.g. a tower scaffold rather than a ladder. However a ladder may be justified for short duration low risk repetitive work e.g. a person doing traffic light maintenance/cleaning. Care should be taken when requiring precautions for short duration

work (taking minutes rather than hours) because it may not be reasonably practicable to install safeguards such as edge protection. The decision on the precautions to be taken will depend on an overall assessment of the risks involved (including duration and complexity of the work. Paragraphs 58 - 60 Health and safety in roof work, HSG 33 give more information on this.

Evacuation and rescue. If evacuation from a deployed fall arrest system is going to be difficult, choose other work equipment e.g. a MEWP.

Additional risk posed by the installation and removal of work equipment. A MEWP used by 1 person to work safely at height may entail less risk than exposing 2 or 3 people to risk in order to erect a tower or scaffold for the 1 person to work safely. The 2 or 3 people will be exposed to more risk during installation and removal of scaffold tubing boarding etc, which has to be installed and dismantled at height. A MEWP will entail lower installation and removal risks.

As well as ensuring the correct selection of work equipment, duty holders should also ensure that it is well maintained and regularly inspected. Schedules 2 to 6 of the WAHR set out the requirements for particular work equipment. Appendix 9 of OC 200/31 contains guidance on inspection requirements for work equipment.

(For maintenance issues refer to Reg 5 of PUWER. PUWER Reg 6 (inspection) requirements no longer apply to work equipment used for work at height, use Reg 12 of WAHR).

IEE
Where work is being carried out at heights where a persons could fall a distance liable to cause personal injury, (e.g. roof work, work at open edges) and there are no precautions against falling, the IEE is a Prohibition Notice and consider a pre harm prosecution, See Section 7.

Where evidence indicates work at or near open edges at heights where a persons could fall a distance liable to cause personal injury will be done, e.g. at mezzanine floor/above office storage areas and there are no precautions against falling from the edge, the IEE is an Improvement Notice. See Section 6 for a template Notice.

The following paragraphs set out the requirements for some common types of work equipment used during work at height.

2.3.2 Requirements for Collective Means of Fall Prevention (e.g. guard rails, toe boards and similar means of protection)

L24; Health and Safety in Construction: HSG 150 (3rd edition); Health and Safety in Roof work: HSG33.

Schedule 2 of the (WAHR) covers the requirements for guardrails, toe boards or other similar barriers.

For non-construction work there are no prescriptive dimensions for guardrail heights or toe board heights in the WAHR. They have to be of **sufficient dimension** for the purposes for which they are being used. For buildings, factories, warehouses, offices, public buildings, retail premises etc sufficient dimensions for guard rails or similar barriers will be achieved by complying with current Building Regulations requirements which are 1100 mm. For plant, machinery equipment etc sufficient dimension can be achieved by compliance with any relevant EN standard or the Supply of Machinery Safety Regulations 1992 (SMSR) Essential Health and Safety Requirements (EHSR) which specify, ‘designed and constructed to avoid

falls'. For non-construction activities the policy line is guardrail heights should be a minimum of 950 mm. Anything below this height should be justified on the basis of risk assessment.

In relation to work at height involved in construction work WAHR specifies a top guardrail height of 950 mm with an intermediate guardrail positioned so that any gap in means of protection does not exceed 470 mm.

Toe board heights for both construction and non-construction shall be suitable and sufficient. i.e. no prescriptive height although 100 mm is the policy line for an acceptable height.

Edge protection should be rigid enough to prevent a person and/or load falling. Chains are not rigid enough to provide adequate edge protection. They are often found at mezzanine loading bays. The use of proprietary hinged barriers are a safer alternative to the use of removable rigid guardrails at such bays.

Where work is not done at the edge, demarcation barriers can be provided at a safe distance from the edge (usually at least 2 metres). e.g. work on an air-conditioning unit in the middle of a roof. Barriers should be visible and obvious e.g. cones with tape. Other things to consider before justifying such barriers are: -

- Is access controlled? i.e. only fully briefed competent workers are allowed to access the area;
- There is no slope that workers could slide down;
- Appropriate levels of supervision are provided to ensure no one goes beyond the barriers;
- Barriers can be placed and retrieved without approaching an edge.

Office roofs are commonly used for storage. They should be able to bear the weight of people and loads, and should be provided with adequate access and edge protection. It may be reasonably practicable for a permanent access (e.g. stairs) to be provided. The duty holder should consult a competent person such as a building surveyor if load-bearing capacity is an issue for such storage areas.

2.3.3 Stairs

Key reference: BS 5395 'Stairs, ladders and walkways' (Code of practice for the design, manufacture, construction and maintenance of stairs, ladders and walkways. Covers requirements for handrails, loadings, fire safety, dimensions and stability. 44 pages) (See also the topic pack for Slips and Trips)

Stairs should be provided with protection against falling from either side e.g. robust handrails. The Building Regulations require every stair with two or more rises to have a continuous handrail to provide guidance and support to those using the stair. It is preferable to have a handrail on both sides particularly where people are likely to ascend and descend at the same time e.g. on wider frequently used stairs.

The definition of work at height in WAHR does not include access and egress by a staircase in a permanent workplace. As a result of this, any defects relating to handrails on staircases in a permanent workplace should be dealt with by reference to Regulation 12(5) of the Workplace (Health, Safety and Welfare) Regulations 1992. Accompanying ACOP guidance to Reg 12 covers handrail heights.

Activities such as maintenance and structural work on stairs or installing and amending displays on stairs will come under the requirements of WAHR if a person could fall a distance liable to cause personal injury as a result of such activities.

Control measures for preventing slips described in the slips and trips topic pack should be applied to stairs. Appropriate inspection and maintenance systems should be in place to ensure the continued slip resistance of stair treads and landing surfaces. Handrail and balustrade anchorages should also be checked.

Other factors that should be considered are the adequacy of lighting and safe access to windows, displays etc on stairways. Employers my need to raise awareness of the risks amongst staff and encourage safe use of stairs, such as holding onto the hand rail, never running and where possible, carry items which do not obstruct vision. Some larger organisations have carried out successful initiatives to improve safety in the use of stairs.

The leading edges of steps should be kept in good condition and if carpeted, the carpet should be secured.

2.3.4 General Scaffolds

Key references: Health and Safety in Construction: HSG 150 (3rd edition); General access scaffolds and ladders: Construction Information Sheet No 49 (Rev1); Inspections and reports: Construction Information Sheet 47 (Rev1).

Schedule 3 of WAHR covers requirements for working platforms which include scaffolds, tower scaffolds, MEWPS and FLT platforms.

Scaffolds should be erected, altered and dismantled by competent people. All standards (uprights) should have base plates (and, where necessary, timber sole plates). The scaffold should be secured to the building or structure in enough places to prevent collapse. If not then alternatives e.g. raking shores will be needed. There should be double guardrails and a toe board. See Section 2.3.2 for guardrail and toe board heights. Additional guards/infill may be needed to prevent materials falling from scaffolds. Working platforms should be fully boarded and the boards arranged to avoid slipping or tripping.

A competent person should inspect the scaffold regularly (at least once a week, and always after it has been altered or damaged and following extreme weather) and the results of inspections recorded.

2.3.5 Tower Scaffolds

Key References: Construction Information Sheet No 10 (Rev4): Tower scaffolds.

Tower scaffolds should be erected and used only in accordance with suppliers' instructions. The person erecting the tower should be competent. The manufacturer or supplier should provide an adequate instruction manual that should give advice on the erection sequence and bracing requirements. If the tower has been hired, the hirer should provide this information. This information should be passed to the erector. Critically, guardrails and toe boards must be fitted. Tower scaffolds should rest on firm level ground, with the wheels or feet properly supported and if necessary, outriggers fitted.

As a guide, the height of the tower scaffold should be no more than 3 times the minimum base dimension (or in line with the height to base ratio in the instruction manual). Tower scaffolds should not be used to support ladders. Wheels should be locked when in use and the platforms empty when moved. Safe access to the working platform is needed i.e. through an internal trap door - it is never safe to climb up the outside of the end frames of a tower.

Tower scaffolds should be inspected by a competent person before use, after substantial alteration, and after any event likely to affect their stability.

IEE
Where a tower scaffold has been incorrectly assembled such that there are no guard rails and toe boards or no safe access to the working platform or the height of the tower scaffold is more than 3 times the minimum base dimension and the manufacturer's height to base ratio cannot be clarified by the duty holder, or the tower is not vertical, or a ladder is being used on top of it, the IEE is a Prohibition Notice and consider a pre harm prosecution if the tower is in use, See Section 7.

2.3.6 Mobile Elevating Working Platforms (MEWP'S)

Key references: Information sheet 'Preventing Falls from Boom type MEWP's (MISC614). OC314/20 contains the IEE and gives additional background to the information sheet, Health and Safety in Construction: HSG 150 (3rd edition).

MEWP's come in a variety of shapes and sizes. They can be vehicle mounted or self-propelled. Some are suitable for travelling with the carrier in the raised position. Small ones can fit through doorways and they have a variety of applications from cleaning gutters, general maintenance and repair tasks and construction.

The information sheet and OC provides guidance on assessing and controlling the risk when using a MEWP and give detailed requirements relating to safe plant, safe site and safe operator. If there is a residual risk of impact or persons falling, the expectation is that fall protection equipment should be used.

MEWPs should be provided with guard rails, toe-boards, stability devices (e.g. outriggers, locking-out controls (other than those in the basket) to prevent inadvertent operation. They should be used on firm ground which is free from slopes / holes etc likely to result in overturning.

A safe system of work is needed which includes: planning the job; use of trained/experienced operators; instructions when to enter/leave the basket (e.g. when basket is fully lowered); instructions in emergency procedures such as evacuation in the event of power loss and use where necessary, of suitable work restraint.

IEE
See OC 314/20 and Inspector Checklist. (Section 7)

2.3.7 Working Platforms on Fork Lift Trucks

Key References: Guidance Note PM 28 (3rd edition) Working platforms on fork lift trucks.

Types of equipment include order pickers where the drivers cab moves up with the forks (often found in high bay warehouses) and working platforms mounted on the forks to enable access to height. Working platforms generally consist of non integrated (no controls in the platform) and integrated (have controls linked to the truck so that only a person in the platform can control the lift height of the platform and truck movements).

While non-integrated working platforms and lift trucks can be used safely together, preference should be given to the use of purpose-built equipment for access to, and work at, height (e.g. permanent stairways, tower/general scaffolding, MEWPs).

Non-integrated platforms should only be used for exceptional/occasional use. Non-integrated platforms can be used with appropriate trucks in accordance with the guidance in PM28.
Examples of exceptional/occasional use are;

- replacement of light fittings in high rise warehouses if the task is not carried out as part of periodic maintenance operations,
- checking of high-level damage to racking suspected of causing an immediate risk or checking on the condition of damaged roof lights.

Routine tasks such as periodic maintenance or stocktaking are not exceptional circumstances and are not considered to be exceptional use.

Non-integrated platforms are not considered suitable for use on a number of vehicles including trucks with masts that can give erratic movement and variable reach trucks that can lift over 6 – 7 metres.

Truck/integrated platform combinations which comply with both the industrial truck and MEWP standards or equivalent give a higher level of safety than non integrated platforms and are not restricted to use in exceptional circumstance.

The working platform should be compatible with the forklift truck (see manufacturers/suppliers information) and the weight of the platform and load (including attachments, people, tools, materials etc) should be less than half the actual capacity of the truck. The platform should be secured. The platform fitted should have an identification plate including: manufacturer, serial number, unladen weight and position of centre of gravity, maximum allowable load in kg, number of people to be carried, and minimum actual capacity of truck on which it can be used.

There should be a sign on the platform warning that the parking brake should be applied and the transmission in neutral before raising the platform and that people should not leave the platform while it is elevated. The platform should have a slip resistant floor capable of supporting the weight required of it; guardrails and toe boards; safety harness anchorage; handholds and protection from moving parts. Pre-use checks should be carried out on the platform to make sure it is properly located and secured and guardrails etc are in place in addition to a thorough examination every six months (or in accordance with a written scheme).

Truck operators and people expected to work on the platforms need to be properly trained in the use of the equipment and safe systems of work (including: locking side shift or tilt mechanism controls to prevent their use; action to be taken in the event of an emergency; and the dangers of leaning out of the platform). There should be easy communication between the person on the platform and the truck operator. Non-integrated platforms must not be moved at height with workers in the platform.

IEE

The bare forks of a forklift truck, or a pallet on the forks, are sometimes used to raise and lower people to enable them to work at height. This is a dangerous practice creating an imminent risk of serious personal injury because there is no protection against falling and no protection against the moving parts of the truck lifting mechanism. In these cases, the IEE is a Prohibition Notice and consider a pre harm prosecution, See Section 7.

OC 282/31 “Rope Evacuation from Mechanical Handling Equipment” gives advice on the use of emergency rope evacuation systems to assist rescue from mechanical handling equipment at high level. It covers mechanical handling equipment such as order pickers and operator up forklift trucks that elevate the operator position above 3 metres. Rope evacuation should only be used as the last resort when an alternative safer means of escape cannot be provided. Serious accidents including a fatal have occurred during the use of such evacuation equipment, particularly during training. The OC covers requirement for risk assessment, training, maintenance etc. The document contains guidance on IEE.

2.3.8 Work Restraint

Key References: See Section 5, which refers to inspector training presentations. Part 5 of the presentations covers work restraint and other fall protection systems which are discussed in paragraphs 2.3.9 and 2.3.10 below.

Work restraint is a personal fall protection system that uses a body holding device connected to a reliable anchor to prevent a person from reaching zones where the risk of a fall exists. A work restraint system will consist of a harness or waist belt, which is connected to a lanyard. The lanyard should be securely anchored. The length of lanyard should be such that the user is physically restricted from reaching a position from which a fall can occur. Such systems can be used for roof inspection etc. Work restraint (personal fall prevention) comes ahead of collective fall arrest (See Section 2.3.9 below) in terms of the hierarchy in WAHR because it prevents the fall occurring. (The equipment used for work restraint can be the same as equipment used for fall arrest however a waist belt is not acceptable for a fall arrest system and if used for fall arrest, the lanyard must have a means for absorbing energy should there be a fall. The harness must also be suitable for use in fall arrest. A lanyard with an energy absorber can be used for work restraint providing its length does not allow the user to reach a position from which a fall can occur).

2.3.9 Collective Safeguards for Arresting Falls

Key References: Appendix 2, HSG33 Health & Safety in Roof Work*;* British Standard Code of Practice pending.

Nets and airbags and similar safe guards provide collective fall arrest. The safeguards should arrest a fall safely so they should be placed as close to the level at which persons are working so that any fall height is minimised. There must be sufficient clearance below nets to accommodate the sagging that will occur when someone falls in. Protruding objects or stored materials underneath nets can cause injury under such circumstances. Nets should be securely anchored. Available persons should be trained in the installation and use of collective safeguards and arrangements should be in place for rescue should someone fall into a net.

Schedule 4 WAHR covers requirements for collective safeguards for arresting falls.

2.3.10 Requirements for personal fall protection systems

(Includes work restraint [See Section 2.3.8 above], personal fall prevention, work positioning, rope access, fall arrest and rescue systems.

Key References: Appendix 3, HSE33 Health & Safety In Roof Work; OC 282/30 Inspection of fall arrest equipment made from webbing or rope, INDG 367 Inspecting fall arrest equipment made from webbing or rope; Health and Safety in Construction: HSG 150 (3rd edition). BS EN365:2004 Personal protective equipment against falls from a height. General requirements for instructions for use and for marking. BS 8437:2005 Code of practice for selection, use and maintenance of personal fall protection systems and equipment for use in the workplace. Work at Height Safety Association (WAHSA) leaflets, see downloads section of HSE Falls from height website; 'Selecting, using and maintaining personal fall protection equipment' Information sheet 4 (Height Aware Campaign) available from HSE falls from height website;

Schedule 5 WAHR covers requirements for personal fall protection systems
Personal fall protection systems should only be used if the risk assessment has demonstrated that the work can be done safely while using the equipment and the use of

other, safer work equipment e.g. collective protection measures is not reasonably practicable.

Workers should have received adequate training specific to the operations envisaged, including rescue procedures. Personal protection systems should be of suitable and sufficient strength. They should also fit the user and be designed to minimise injury to the user in the event of a fall. If designed for use with an anchor, the system should be attached to at least one anchor and the anchors and attachments shall be of suitable and sufficient strength to cope with any foreseeable loading.

Personal fall protection systems are a complex area as there are often only subtle differences between the various techniques and components of the system are interchangeable e.g. an energy absorbing lanyard can be used for work restraint and fall arrest. The following sub paragraphs give some definitions and an introduction to the various systems with some guidance on what to look out for. HSE inspectors should contact their local Specialist Group to discuss the specific circumstances, if support for action is needed. LA inspectors should consult their ELO.

Personal fall prevention system
A personal fall prevention system is a system (not using a harness or an anchor) by which a person is prevented from reaching zones where the risk of a fall exists. An example is a valley gutter frame walker. The user stands within a frame that can be picked up and walked with. If dropped or the user slips, the frame and its supports will stop the user falling through an adjacent fragile surface.

Work positioning systems
A work positioning system is a personal fall protection system that normally includes a harness connected to a reliable anchor to support the user in tension or suspension in such a way that a fall is prevented or restricted. The rope moves with the user through e.g. a pulley or similar arrangement. Typical applications include the use of bosons chairs where the user is suspended and the rope moves with the user. Such systems must have a back up system for preventing or arresting a fall and where a second line is used as a back up, the user must be connected to it. Back up systems can include edge protection or nets in some circumstances e.g. when such systems are used on a sloping roof.

Rope access systems
A rope access system is a personal fall protection system using 2 lines or ropes each static and separately secured to reliable anchors. One line is connected to a harness which acts as the primary means of support and the other line acts as a safety back up to arrest and restrict the fall in the event of the primary support failing. (Both lines must be connected to the harness). The working line is equipped with a safe means of ascent and descent and has a self locking system to prevent the user falling if they loose control of their movements. The safety line is equipped with a mobile fall protection system that is connected to and travels with the user. Depending on the duration of the job and ergonomic considerations, a seat should be provided.

Typical applications include inspection of building and structures, some window cleaning etc. The key difference between rope access and work positioning is that in work positioning the rope moves with the user and in rope access the user moves up and down the rope (rope remains static). This feature will help distinguish which technique is in use and which part of Schedule 5 of WAHR applies.

Rope access cannot use a single line unless the risk assessment demonstrates that the use of a second line would entail higher risk to persons and appropriate measures have been taken to ensure safety. eg police or army deployment by rope access techniques where the

complications of a second line would hinder the required prompt deployment or a rescue situation where the use of a second rope would cause a delay or complicate the rescue.

Currently LOLER will apply to rope access and work positioning equipment.

Fall arrest systems
A fall arrest system is a personal fall protection system that uses a harness connected to a reliable anchor to arrest and restrict a fall so as to prevent the collision of the user with the ground or structure whilst limiting the forces on the body.

The system should have a suitable means of absorbing energy and limiting the forces on the body once deployed e.g. an energy-absorbing lanyard.

A typical fall arrest system will take 5 metres to deploy so there must be adequate clearance for the lanyard and energy absorber to deploy. Protection against sharp edges may be needed if the lanyard can come into contact with e.g. a sharp roof edge on deployment. Inertia reels are another means of absorbing energy. They consist of a retractable lanyard that allows the user to move around a work position. (Rather like a retractable dog walking lead). If the user falls, the device operates rather like a car seat belt and the fall will be arrested as the device locks up. There is energy absorbance within the inertia reel to arrest a fall without the risk of undue injury.

Users should be careful when using such systems because most inertia reels should be anchored above the user so that the fall factor (fall distance divided by lanyard length) is minimised. This is called anchorage in the vertical position i.e. above the user. The user should remain within a 30 degree cone (or in accordance with manufacturers instructions) under the anchor. Deployment at a greater angle can result in the device failing to arrest a fall. Users should consult with the suppliers if they intend to anchor the inertia reel at foot level (horizontal position) because the fall factor will be greater if someone falls over an edge. This will impose more force on the system and some systems are not designed to cope with the expected forces if anchored in the horizontal position. If you see an inertia reel anchored at the horizontal level, enquire with the user whether they have concluded that this is acceptable.

There is often a greater risk of severing the lanyard of an inertia reel system because it can give out a lot of line meaning that if the user was to fall over an edge, there could be a pendulum effect which drags the line across an edge thereby applying more force on the lanyard. The user must consider this risk when deciding whether or not to use a retractable fall arrest system.

Harnesses and lanyards should only be selected as the last choice for protection against falls. Use must be strictly controlled. Anchorages and supporting structures, lanyards and harnesses, etc. should be compatible, identifiable, regularly inspected and the inspections recorded. (Anchorages should be inspected at least every 12 months - (Ref BS EN 795 & BS EN 7883); energy absorbing lanyards at least every 6 months or, if used in arduous environments, every 3 months (reference OC 282/30). Any running line must be a designed system.

Equipment should be properly stored to avoid ingress of dirt, chemicals, abrasion and other abuses.

Users should be trained in pre-use checks and how to use PPE (e.g. how to wear and adjust it to the body; how to manage the lanyard and other equipment; how to fall so as to minimise the risk of injury; how to assemble the system correctly, including safe anchorages, e.g. anchorage as high as possible above the user and from a position of safety.)

A rescue plan will be needed if the equipment is deployed and self-rescue is not possible. This is a requirement of WAHR. Suspension trauma can result if someone is left suspended in a harness for too long.

IEE
Where lanyards are in use and there is visual evidence of significant defects or damage there is an imminent risk of serious personal injury the IEE is a Prohibition Notice.

Where lanyards are used frequently and there is no inspection regime, but no evidence of defects, HSE construction specialists have indicated that they are likely to offer support for an Improvement Notice requiring an inspection regime.

Before expiry of the Notice, they have also indicated that they may offer support for PNs, where there is resistance from duty holders to take the following interim measures: where any lanyard is less than 6 months old (3 months if used in an arduous environment) to withdraw it from use until a pre-use check has been carried out; where any lanyard is more than 6 months old (3 months if used in an arduous environment) to withdraw it from use until a detailed inspection has been carried out. This is because lanyards of uncertain integrity are in use and there could be imminent risk of serious personal injury.

HSE inspectors should contact their local Specialist Group to discuss the specific circumstances, if support for action as above is needed. LA inspectors should consult their ELO.

Rescue system
A rescue system is a personal fall protection system by which a person can carry out a rescue, rescue themselves, or be rescued from height or depth by pulling, lifting, lowering or self ascent/descent.

Some rescue systems have a telescopic rod that can be used to attach a rescue line to the harness of a stranded person. The person can then be rescued by lowering or rising. Others consist of a bag that contains the line, attachment, harness and descender device. If someone becomes stranded they can attach the line, put on the harness, deploy the line from the bag to the ground and then descend the line using the hand held descender device. Such systems are available for self-rescue from high order pickers. Reference OC 282/31 ‘Rope evacuation from mechanical handling equipment’

Rescue systems can form part of a duty holders arrangements for managing emergencies and rescue which is a duty under WAHR. Training is particularly important to ensure users are equipped with the necessary knowledge to use such systems safely.

2.3.11 Ladders - Portable Leaning and Stepladders
Key References: INDG402 Safe Use of Ladders and Stepladders: An Employers guide; INDG405 Top Tips for Ladder Safety/Pocket Card. OC 200/30 Safe Use of Ladders and Stepladders: INDG229(rev1) Using work Equipment Safely. This publication includes a section on ladders.

Ladders are ubiquitous and are often used unsupervised as a means of access to high workplaces and also as a place of work. All too often, ladders are used without thought given to whether they are the safest equipment for the job. They are often treated with complacency.

It is important that the selection, use and maintenance of ladders are questioned by both duty holders and inspectors. In deciding whether a ladder is the most appropriate means of access or place of work, account should be taken of:

(a) the overall risk of the job (e.g. it may be safer to use the correct ladder which is maintained and properly secured for a one-off job of short duration, instead of, for example, a tower scaffold, because there is a risk of falling while erecting a tower scaffold. Alternatively it may be possible for wheeled tower scaffolds to be kept erected for regular jobs such as cleaning mobile trommels in the waste industry); and
(b) the cost in time, money and effort of using alternative equipment.

It is not possible to give rules of when ladders should and should not be used. Each case should be considered on its merits. The aim should be to encourage critical review of the use of ladders as a workplace. Significant factors to consider are whether they are used for access or as a place of work, for light work of short duration or lengthy repeated jobs. (Or has the duty holder simply chosen the quick and easy way out?). Can the ladder be secured to prevent it from slipping sideways or outwards? Ladders may not be suitable if heavy or unwieldy loads have to be carried or if the ground conditions are uneven or soft.

If the use of a ladder is acceptable the duty holder should ensure that they are of a suitable class for the work - right type, right size, right load rating (e.g. BS 2037 & BS 1129 - class 1 industrial (heavy duty) ladders; BS EN131 - replaced class 2 light trades ladders suitable for work use, and BS 2037 & BS 1129 - class 3 domestic and (DIY) ladders). The latter should be avoided in an industrial environment.

If a ladder is placed correctly, at an angle of one in four, (one unit of measurement out for every four units up), on and against a material that has a reasonable coefficient of friction and strength, then a satisfactory factor of safety against slip at either end of the ladder will be achieved for normal use but not foreseeable abuse. However, even small variations in this angle and surface conditions can adversely affect this factor of safety.

Precautions should normally be taken to prevent a leaning ladder slipping or falling. The hierarchy of precautions in descending order of effectiveness, is:

- where possible, tie (or equally effective secure) the ladder at the top. If this is not reasonably practicable; then
- tie it part way down (i.e. through a window), or at or near the foot; then
- use an effective ladder stability device; then
- wedge the ladder against a suitable fixed structure(e.g. a wall); then
- ‘foot it’. The best method of footing is by facing the ladder with both feet on the bottom rung, each foot as far apart as possible on the rung (stile to stile), and both hands on the stiles. The person footing the ladder should remain in the position described until the person using the ladder has descended to at least the halfway point. The user and footer should not overload the ladder.

Ladder stability devices (LSDs) are available and may offer additional means of achieving ladder stability, where it is not reasonably practicable to use other methods (e.g. tying or footing). Before selecting an LSD the duty holder should carry out a risk assessment to establish: that it is not reasonably practicable to use another safer access method; that it is not possible (reasonably practicable) to tie the ladder; that it will actually increase the stability of the ladder to an acceptable level for the intended use; and that it is compatible with all the equipment being used (e.g. ladder levellers). This may be difficult to establish as a recognised performance standard is not currently available for testing LSDs. HSE research on evaluating the performance and effectiveness of LSDs has been published as

Research Report 205 and HSE's current position on this research is set out in paras 36 and 37 of OC 200/30. Duty holders should contact the LSD manufacturer/supplier where there is doubt about the suitability of LSDs for specific applications, or for further information to assist their risk assessment.

Ladder levellers are available for use on sloping surfaces. Again, the risk assessment should consider whether other safer access methods are appropriate.

The performance of some LSDs and ladder levellers may be affected by wet, shiny or dusty surfaces, and the risk assessment should therefore also consider the condition of the surface on which they are to operate.

LSDs and ladder levellers should only be used strictly in accordance with the manufacturer's / supplier's instructions for use.

In use the portable leaning ladder should:

- rest against a solid surface at the top.
- rise a sufficient height above the landing point (normally at least one metre or three rungs). If not, there should be other secure safe handholds available.
- be positioned so users do not have to overreach or climb over obstacles. Users should normally be able to do the job with both feet and one hand on the ladder.
- rest on firm, level ground.
- be in good condition and free from slippery substances.
- be used with adequate clearance from traffic routes.
- be at an angle of 1 metre out for every 4 metres up.

When stored, ladders should be protected from the weather/harsh environments; and preferably stored on one edge in racks or hung from a stile with enough supports to prevent sagging. Ladders should not be hung from rungs.

Bucket hooks, tool belts, work trays, etc may be needed for carrying equipment. Ladders should be individually identifiable, subject to a pre-use check, and regularly inspected. The inspection should cover the stiles, rungs, treads, crossbars, rung-to-stile connections, welds, screws, hinges, anti-skid devices, etc.

Much work on ladders is carried out by lone workers and it is vital that workers are instructed on: how to check ladders are in a safe condition; how to put the ladders up; the need for securing the ladder and the dangers of over reaching.

For fixed ladders there should be adequate resting places. Where a ladder or run of ladders rises a vertical distance of 9 metres or more above its base, it should at suitable intervals be provided with safe landing areas or rest platforms.

IEE

Where portable leaning ladders which are available for use, or in use, have the following damage or defects: splits in timber ladders; cracked welds at rung/stile connections on metallic ladders; missing rungs; lack of rigidity and play between rungs and stiles; missing anti-slip devices at the top and bottom (NB the wooden ends of wood ladders are considered to be anti-slip); bent stiles at the bottom, the IEE is a Prohibition Notice. (Note, for a pre harm prosecution to be considered, the defective ladder would have to be found in use and the defect would have to be obviously dangerous. See Section 7)

Where ladders show signs of damage or defects which are not likely to result in imminent risk of serious personal injury (e.g. minor dents in rungs; damage other than those listed above) the IEE is an Improvement Notice. The Notice may either require individual ladders

to be inspected, or an inspection system to be implemented, by a competent person. For the latter, the duty holder will need to specify the type and frequency of inspection, and this will depend on the use/abuse the ladder is exposed to.

Where ladders are not in use at the visit, but are used as workplaces at heights where a person could fall a distance liable to cause personal injury and consideration has not been given to whether ladders are appropriate equipment for the work, the IEE is an Improvement Notice. The Notice may require a risk assessment to identify foreseeable work carried out from portable ladders and to decide whether they are suitable for the work (i.e. whether the work could be done using safer equipment - e.g. properly erected mobile tower scaffolding, or mobile elevating working platforms [MEWP] operated by competent people). See Section 6 for a template Notice.

Where homemade ladders are in use and the duty holder cannot demonstrate that they meet similar standards for strength, rating and performance to the relevant British Standard (or an equally effective standard) the IEE is a Prohibition Notice. 'Home made ladders' are 'Heath Robinson' ladders that are built on site or by the user and appear to be visibly inadequate. They should be removed from use. They should not be confused with ladders that are not manufactured to a standard.

Schedule 6 of WAHR covers the requirements for ladders.

2.4 Target Area 3

Duty holders should ensure that there are adequate systems for screening potential contractors and monitoring their work, which are understood and practised by managers.

SYSTEMS FOR THE PROCUREMENT AND CONTROL OF CONTRACTORS

Key References: 'Selecting competent contractors for work at height' Information sheet 3 (Height Aware Campaign) available from HSE falls from height website; INDG 368 Use of Contractors a joint responsibility: Having construction work done? Duties of clients under the Construction (Design and Management) regulations 1994: MISC 193; Construction (Design and Management) Regulations 1994: The role of the client: CIS 39.

The extent of the duty holder's management of contractors will depend on the nature of the work and the risk. Even SMEs can be expected to apply pressure to some extent on the behaviour of those they contract to carry out work on their behalf.

The client/duty holder should know what the job is, whether it will involve working at height, whether the work at height can be eliminated, and what the precautions are going to be used to control the risk. They should discuss health and safety aspects with the contractor.

When choosing a contractor, the duty holder should make attempts to assess the contractor's competence for working at height e.g. check references. Asking for a method statement and risk assessment to define how the contractor will do the work at height safely will be prudent. Before contractors work on site, the duty holder should tell them about the site rules and hazards and make sure the contractors' procedures fit in with their own. See 'Inspector Checklist' (Section 7) for questions to ask to determine the competency of a contractor.

When contractors are working on site, the client should always know when contractors are on site (e.g. require them to sign in and out, contact a named person) Day to day, the client should check the job is going as planned in the method statement. Have there been any

incidents? Are individual managers aware of their responsibilities for liaising with and monitoring contractors activities. For larger client firms a review of their procedures for selecting and managing contractors when the work is finished is worthwhile. Having a disciplinary system for contracting companies and their individual employees who fail to work safely? (e.g. removal from approved lists, loss of the contract, financial penalties) is recommended.

For client duties under the Construction (Design and Management) Regulations 1994, see 'The role of the client': CIS 39.

IEE

Where there is **regular or frequent** use of contractors for work at height (particularly if various contractors are used) and no management procedure then the IEE is an Improvement Notice. See Section 6 for a template Notice.

SECTION 3 - INSPECTION AIDE-MEMOIRE

Before the visit

Check the records for the premises to be visited to identify whether work at height issues have been raised in the past. Previous letters, enforcement notices etc. will be relevant to measure progress regarding arrangements for the control of all work at height.

Inspectors should not place themselves at any risk when inspecting work at height and should not access any work equipment unless it is established that the equipment has been maintained and thoroughly examined (if appropriate.) If there are any doubts about the safety of equipment, place of work or the fragility of any surface then you should not proceed and should consult your line manager.

Inspectors should be familiar with relevant references listed in Section 5

Although building/demolition work is an obvious area for attention to FFH risks, any workplace where there are high places or equipment which needs to be maintained, cleaned, repaired, sheeted (in the case of vehicles), etc. will warrant detailed examination of control measures.
In many cases, work at height (particularly maintenance, cleaning and repair work), may not be happening during visits. In addition, many duty holders may not have recognised that it is a risk, especially if they view it as incidental or ancillary to their main work.

On arrival at the premises

Observe the outside fabric of the premises. The roof structure may be complex consisting of flat roof, sloping roofs, valley gutters, etc. The more complex the structure, the greater the potential risk if the duty holder has not thought about safe access.

Older buildings may entail greater risk as ageing may effect the integrity of fixed ladders, guard rails, roof surfaces etc that may have corroded. The presence of fragile surfaces on the roof such as asbestos cement sheeting, plastic sheeting, corroded metal sheeting and skylights will also increase the risk of a fall if suitable precautions have not been provided.

If fragile surfaces exist, have warning notices been placed at access points such as valley gutters?

The presence of high level equipment such as storage tanks, silos, air-conditioning units, cooling towers, communication equipment etc will mean that periodic access for maintenance, repair and cleaning will be likely. Has the duty holder thought about safe access?

Is the roof structure equipped with fixed guardrails or a roof parapet? Are fixed access arrangements provided such as a stairway or fixed ladders. If so, these existing precautions providing they are maintained, should ensure a greater degree of safety for any work on the roof. What precautions are in place to stop unauthorised access e.g. children at the weekend?

Are skips in excess of 2 metres high present on site, if so what access arrangements are provided. All too often employees climb skips or access them from the raised pallets of a forklift truck. Safe means of filling skips should be provided that either do not involve the

need to access height or a safe means of access is provided such as a guarded platform or aircraft steps.

The presence of guttering damaged or not, security cameras, lighting, ventilation inlets etc will all require periodic cleaning/maintenance so remember to enquire as to how the duty holder will ensure safe access. The need to reach high surfaces for painting and window cleaning will also need to be raised. Some premises may have complex glazing arrangements that will need suitable arrangements to ensure safe access for cleaning.

On arrival inside the premises

Observe the internal fabric of the premises. Are there any elevated lights, roof fans, or other high level equipment/services such as electrical cabling, junction boxes, water pipes etc which may need cleaning and maintenance. What access arrangements are available and are they adequate to protect against a fall?

Look out for storage and racking systems that could result in work at height. Are there any mezzanine floors present or large plant and equipment. Do they have adequate fixed guardrails and access arrangements? If forklift trucks are in use, how are goods landed safely on mezzanine floors. Safe systems of work should be in place to prevent a fall during such activities. Open edges should not be tolerated. Proprietary self-adjusting barriers can be used to provide continuous edge protection during such activities. The use of chains as edge protection does not afford sufficient protection from a fall.

Are materials stored above internal offices. If so, are access arrangements suitable and is edge protection provided. Have roof loadings been considered by a competent person?

Look out for pits, voids. tanks, cellar openings/trapdoors etc. that people could fall into. Are adequate precautions in place?

Are items produced on site that will entail work at height e.g. construction of large fabrications, aircraft, machinery, plant, models, exhibition stands etc. Are access arrangements and arrangements for carrying out the work suitable?

Do people work at height to feed material into hoppers etc., are access arrangements suitable and is a safe working platform with edge protection provided? Do high-level surfaces need periodic cleaning? Do items of equipment such as ovens, booths, lighting rigs, etc need access for cleaning and maintenance? If so are access arrangements suitable?

Even in apparently low risk premises such as offices and retail premises work at height may be carried out e.g. changing light bulbs, accessing racking/elevated storage areas and placing items in display stands. Are access arrangements appropriate?

Be aware of the risk of low falls. Remember nearly 2/3 of major injuries at work were due to low falls. Inappropriate access equipment such as chairs or tables may be used. A search of the accident book may reveal persistent low fall incidents that require attention.

Inspecting management arrangements for the control of falls from height

Identify a person who has health and safety responsibility for the site and discuss the management of the topic area. See Section 2 for detailed guidance and a summary in the Inspection Checklist, Section 7.

SECTION 4 - SECTOR ENFORCEMENT GUIDANCE, LEGAL REQUIREMENTS AND REFERENCES

This Section contains sector specific information on: any target areas for action that are in addition to the cross sector target areas; enforcement; and guidance publications.
Any queries relating to the content should be directed to the relevant sector.

4.1 HSE Sectors

AGRICULTURE SECTOR

Agriculture

Target Areas for Action

- Inadequate precautions to prevent fall through fragile roofs, and fragile roof lights.
- Inadequate precautions to prevent falls from roof edges and other structures.
- Use of ladders where a safer alternative is available / promotion of safer alternatives e.g. scaffolds, working platforms on fork lift trucks etc.
- Unsafe use of ladders e.g. failure to secure, incorrect angle etc
- Use of defective ladders.
- Unnecessary work at height e.g. vacuuming in grain stores from ladders rather than using a long nozzle on the vacuum cleaner;
- Use of makeshift working platforms on forklifts and tractor fore end loaders.
- Glass house repair and maintenance;
- tree climbing without rope and harness for arboriculture work (tree surgery). This work is normally dealt with by Inspectors in the Agriculture/Wood Sector. However, non-Agriculture/Wood inspectors may encounter it at visits.

Enforcement - Arboriculture
Without a rope and harness there is a risk of the climber falling a distance liable to cause personal injury.
The benchmark for EMM (2.0) purposes is remote risk of serious personal injury.
Prosecution should be considered by virtue of economic advantage.

References

Why fall for it - Preventing Falls in Agriculture INDG 369
Don’t fall for it - Video 1999 UK4424
Preventing falls from fragile roofs in agriculture AIS32
Safe working on glasshouse roofs AIS12(rev)
Farm wise - your guide to health and safety. MISC 165 1992
Tree Climbing Operations. FASTco Arboricultural Association Safety Guide 401. Contact Ag/Wood Sector for a copy.

Guide to Good Climbing Practice. FASTco Arboricultural Association (price £5) Contact Ag/wood sector for details.
Tree work Accidents. HSE INDG278.
LOLER: How the regulations apply to arboriculture AIS30, contains guidance on the WAHR.

Food

Target Areas for Action

- Cleaning of machinery/plant etc. by standing on plant or unsecured ladder. Encourage either safe fixed access (e.g. steps/platforms with handrails) or cleaning from the ground (e.g. by foam jet).
- Checking or sampling requiring access above ground level. Encourage ground level monitoring etc or safe fixed access.
- Maintenance above ground level. Ensure safe systems or safe fixed access for regular tasks.

Enforcement

Food and drink manufacturers report around 750 falls from height each year, comprising 8% of all injuries. Some 15% are due to falls below head height (low falls) above head height. Virtually all falls from height arise from the three target areas cited above. Safe access onto food/drink plant should be built in at the design stage, bearing in mind the need for regular hygienic cleaning. Lack of good plant design for safe access would be suitable for an Improvement Notice. If there is a likelihood of falling a distance liable to cause personal injury, a Prohibition Notice should be considered, especially if the standing area is wet, greasy or contaminated with food.

References

Preventing falls from height in the food and drink industries: Food Information Sheet 30; HSG 233 'A Bakers Dozen', pages 43-48 cover falls from height.

MANUFACTURING SECTOR

Engineering

Target Areas for Action

- Storage of goods on raised work areas such as mezzanine floors and office roofs,
- Risks from openings in floors e.g. MVR inspection pits

Enforcement

General Engineering

For employees working on unsecured ladders, or near unfenced holes or edges, where a person could fall a distance liable to cause personal injury, a Prohibition Notice should be served stopping work until ladders are secured or edge protection is provided. The relevant legal requirements are HSWA Section 2(1), Work at Height Regulations 2005, Regulation 6(3).

The benchmark for EMM purposes is NIL when adequate edge protection is provided, and serious personal injury remote for work on secured ladders.

Lack of planning, prior risk assessment, training and supervision are common factors in investigated accidents and failure to address these areas would be suitable for an Improvement Notice.

References

Health and Safety in Motor Vehicle Repair: HS (G) 67; Health and Safety in Engineering Workshops: HS (G) 129; SIM 3/2002/18: Falls from height in Engineering

Shipbuilding, boat building and repair

Target Areas for Action

- Boat building and repair, particularly the use of trestles, and provision of edge protection especially in relation to the construction of glass reinforced plastic (GRP) yachts;
- Risk identification and management during shipbuilding, boat building and repair. Specific issues include open apertures, work next to stairways, work on lifeboats, work on incomplete scaffolds and work on dry dock altars.

Enforcement

Initial Enforcement Expectations

a) Legislation – Regulation 4 to 16 of the Work at Height Regulations 2005 (WAHR) shall not apply to normal shipboard activities of a ships crew that are carried out solely by the crew under the direction of the master and are not liable to expose persons at work other than the master and crew to a risk to their safety. The WAHR will apply to all other work. Schedule 8 of the WAHR lists relevant revocations which include Reg 7 to 10 and 12 to 30 of the Shipbuilding and Ship Repairing Regulations 1960 and Reg 6 to 8 of the Construction (Health, Safety and Welfare) Regulations 1996.

b) Immediacy of risk - the following situations will give rise to a risk of serious personal injury:
   - where the construction of stages are below the relevant standards i.e. there is a risk that a person could fall a distance liable to cause personal injury;
   - working platforms on trestle stages are at a height above ground level in excess of 66% of the vertical trestle height;
   - trestle stages exceeding 3 metres in vertical height, which are not tied or constructed to prevent their accidental displacement;
   - trestle stages with working platforms without handrails of sufficient integrity to prevent a person falling a distance liable to cause personal injury; and
   - people are working at a height in a lifeboat with inadequate edge protection and fall arrest equipment is not in use.
   - Inspectors should consider issuing a Prohibition Notice where such situations are encountered (see OC 730/12 Staging around ships and boats in build and repair yards for further details and reference 2d below).

c) Benchmark standards and risk gap – are the same for falls from a height in general.

d) Standards – the following are relevant to table 5.1 of the EMM for purposes of deciding the IEE (excluding references relating to falls in general):

Title	**Standard**
The Work at Height Regulations 2005	Defined
OC 730/12	Established
SSA Guidance Notes (as above)	Established

References

1. OC 730/12 Staging around ships and boats in build and repair yards.
2. The Shipbuilders and Ship-repairers Association (SSA) health and safety guidance notes Vol 2 (OC 730/16 The shipbuilding and ship-repairing health and safety consultative

committee and the shipbuilders and ship-repairers association (ssa) health and safety guidance notes refers):

a. Guidance for shipyards on health and safety risk assessment.
b. Contractor control
c. Safe use of mobile elevating work platforms (MEWPs) in shipbuilding and ship-repair yards.
d. Safe work on lifeboats and similar craft at a height.

3. A recommended code of practice for staging: The British Boat builders Association 1993.
4. SIM 03/2004/51 Falls from height in shipbuilding

Ceramics, Pottery, Heavy Clay Refractories, Glass, Concrete and Cement

Target Areas for Action

- falls through the fragile roofs of internal plant such as brick and other dryers within buildings;
- accelerated corrosion and weakening of roof members due to emissions from plant and equipment or processes e.g. areas over kilns in potteries (particularly biscuit kilns) and brick works; curing areas in concrete product factories; in the glass industry, previous use of Stannic Chloride (used in surface treatment) has been known to cause corrosion - now superseded by the use of other materials.

Occupiers may not be familiar with these problems and hence maintenance staff, roof workers and contractors may not be fully briefed about the dangers and the precautions required before commencing work on roofs.

Enforcement

Companies should be aware of the potential problems and have arrangements in place to identify them in advance of any maintenance and similar work and implement the necessary precautions. During the preparations for this programme, enquiries were made via trade associations. There appears to be a reasonable level of awareness (amongst those who responded) of the potential problem. The following guide enforcement action is based on the Enforcement Management Model (EMM) version 2.0 and applies to situations where there is a risk of a person falling a distance liable to cause personal injury.

Risk

There have been accidents arising from these specific risks in which people have fallen through or from dryer roofs or building roofs due to inadequate edge protection, working on fragile materials or weakened roof beams.

Immediate risk

If no regard has been given to the risks from clearly fragile dryer roofs or patently weakened roof members and work is underway, inspectors should consider issuing a prohibition notice (PN) as discussed in EMM Section 2. Whilst action to reduce the risk could be as simple, account should be taken of the nature of the job underway and the need for working platforms to rest on strong structures. This is particularly important in the case of weakened roof beams, where the extent of the problem can be underestimated. Detailed guidance on suitable precautions should be sought from Construction Inspectors where necessary.

Benchmark standards and risk gap

Benchmark standards for controlling the actual risk of falling will be no different in these circumstances than any other situation where fragile materials are concerned.
The specific issue here is whether a company has considered the matter of fragile dryer roofs or corroded roof beam in risk assessments. These matters relate to Compliance and Administrative arrangements (EMM Table 5.2). Inspectors may use the scenarios to make

assessments of actual risk, and the risk gap. Inspectors must ensure that they base their assessment of risk on the factors they find at site. In the case of weakened roof beams, some companies inspect them periodically.

Scenario	Compliance and Administrative - descriptor	Risk Gap
Management arrangements		
Where plant with fragile roofs exist and no systems exist to ensure precautions are implemented before work commences	Absent	Letter/ Improvement Notice*
Where plant and/or processes known to cause weakening occur and no systems exist to ensure precautions are implemented before work commences	Absent	Letter/ Improvement Notice*

Depending on whether work is underway/planned or not.

Initial enforcement expectation (IEE)
The following are relevant to deriving the authority of standards for use in EMM Table 5.1 and hence for deciding the IEE.

Title	Standard
Work at Height Regulations 2005	Defined
Management of Health and Safety At Work Regulations 1999 and ACOP (L21)	Defined
SIM 03/2002/52 - Falls from heights in the Ceramics industries	Interpretative

References
SIM 03/2002/52: Falls from heights in the Ceramics industries:

Quarries and waste management sites (land fill etc)

Target Areas for Action

High risk processes / equipment	Reasonably practicable measures
Quarries: falls where shot firing operations are taking place	Solid edge protection/portable edge protection/safety harnesses. Rules specifying not to approach 5 metres from an unprotected edge and control measures set out in health and safety document
Waste management/land fill sites: faces	Many landfill sites are ex-quarries and have shear faces. Edge protection may be required but see also section above on quarries

References

SIM 03/2005/11 Face heights and safe working practices in rock quarries under the falls from height priority programme
Falls from faces guidance, Quarry Fact file no. 18, December 1997

Wood

Target Areas for Action

- Work on top of timber/log stacks.

Enforcement

Activity	**And**	**Benchmark**	**Targets of action**	**Mitigating/ Confounding Factors** Examples of factors which may suggest particular course of action
Stacking of Sawn timber	Working on top of the stack without edge protection	Nil	Employer Employee	Climbing of stacks is worthy of prosecution. As is working from the top of stacks without any controls

NB Local factors can both reduce or increase the initial enforcement expectation. Prosecution, letters or verbal advice are always options.

Standards
"Defined" can be used for the above and include the HSWA and the Work at Height Regulations 2005.
"Interpretative" standards include Woodworking Information Sheet and HSE leaflets and guidance in general.

References
Health and Safety in Saw milling. HSG172
Safety of Timber Stacks – Stability of Sawn timber. HSL Research Report ME/99/25. - Available on Internet from HSL reports, Engineering control, 1999.
Safe Stacking of sawn timber and board materials. Woodworking Information Sheet 2 (rev)

Guide to Health and Safety in the Woodworking Industry. British Woodworking Federation (price £10). Available from BWF or contact Ag/Wood Sector.

COMMERCIAL AND CONSUMER SERVICES TRANSPORTATION AND UTILITIES SECTOR (CACTUS)

Road Haulage

Target Areas for Action

- Over 200 major accidents were caused from falls from vehicles. Fatalities occur every year in the road haulage industry due to falls from vehicles. The majority of these are low falls (below 2m), typically from flatbed trailers. Falls from lorry cabs and tail-lifts are also common.
- Many accidents, including fatalities, occur during the sheeting of vehicles. All companies must have arrangements for safe-sheeting. Automatic sheeting devices are affordable and can save a lot of time. It is not acceptable for companies to send a vehicle to a lay-by down the road to sheet up.
- More information on falls from vehicles is available in the Workplace Transport Topic Pack.

Enforcement

A hierarchy was developed with agreement with the tanker industry for preventing falls from vehicles. The hierarchy is equally applicable to other types of vehicle where work at height (particularly above two metres) takes place, for example on car transporters, containers and skip lorries.

Hierarchy for road tankers

- Eliminate the need to access the tops of tankers e.g. by bottom loading and discharge facilities, and remotely operated lids on tankers.
- Where access to the top of tankers cannot be eliminated, ensure that fixed gantries are provided at loading and discharge facilities that incorporate secure fencing on all sides of the high level working position from which a person could fall.
- Where fixed gantry loading/unloading is not reasonably practicable and Tank Top access cannot be eliminated, ensure that secure fencing is provided to all sides of the walkway of the road tanker.
- Use of fall arrest systems should primarily be seen as the last resort or used as an interim solution, pending application of the points above, and only if all of the previous control measures are not reasonably practicable. Where used, rigorous controls and training measures need to be applied to support this.
- PPE should be regarded primarily as a support to the controls above and in isolation, only suitable when all other precautions are exhausted.

References

Preventing falls from vehicles – Freight Transport Association guidance
Avoiding falls from vehicles – HSE Leaflet INDG 395
Revised Car Transporter SIM due out early 2007

Docks

1. The WAHR Regs 4 to 16 do not apply to the master and crew of a ship in respect of normal shipboard activities which are carried out solely by the crew under the direction of the master and do not expose others to risks to their health and safety, or to a place specified in reg 7(6) of the Docks Regs 1988, or reg 5(3) of the Loading and unloading of Fishing Vessels Regulations 1988.

2. The WAHR revoke reg 7(4), 7(5) and 7(6)(c) of the Docks Regs 1988 and Reg 5(3)(c) of Loading and Unloading of Fishing Vessels Regulations 1988.
3. Enforcement responsibilities in docks are split between HSE and the Maritime and Coastguard Agency (MCA) according to a Memorandum of Understanding (MoU). See OC 780/1.
4. The Docks Regulations 1988 and COP25 Safety in Docks ACOP and guidance have been superseded in many areas by more recent legislation. The Regulations and ACOP are not being revised by HSE. The Docks industry and Port Skills and Safety Ltd (PSSL) are developing new industry guidance with the support of HSE, which will replace existing guidance in due course.

Docks specific issues

- Container top working - lashing and unlashing freight containers (suitability of lashing points, working platforms, edge protection and harnesses etc)
- Container top working when loading and unloading containers with slewing jib cranes. Suitability of safe systems of work for placing and removing securing equipment (twist locks and cones etc.) The norm should be a container-top working platform. Work restraint may be necessary for some operations such as removing jammed twistlocks. Fall arrest is not acceptable.
- Access to and from vessels (accommodation ladders and gangways) – see Safety in Docks ACOP COP25 – Regulation 7 (1) 'Access to ships' .
- Access to and from places of work on board vessels (holds, hatches, decks etc). Be aware that with bulk cargo access steps into holds can become blocked. See ACOP– as above. The ship's master has a duty to provide safe access.
- Unloading some types of cargo, such as pipework, timber packs etc, can result in open edges from ships decks, passages and from the cargo itself.
- Access to the top of stacks of large bags of, for example, fertiliser or clay. If it is necessary to climb on the bags to lift hoops so the bag can be picked up there must be safe means of access.
- Guarding, where appropriate, at open edges of docks, wharves etc – see ACOP Regulation 6 paragraph 1 to 8.
- Safe access to pontoons and other non-vessel floating structures. Where possible gangways should be used. If gangways cannot be used in specific circumstances, a system of work must be devised for safe access.

References

- Memorandum of Understanding (MoU) between HSE/MAIB/MCA
- ACOP25 Safety in Docks – Docks Regulations 1988 and guidance.

Sector guidance for docks inspection and updated guidance on work at height and container safety are due to be published early in 2007. The following references contain some useful information, but may not reflect WAHR.

- SIM 05/2001/55 Link spans and walkways, ship-to-shore access – dated but still contains useful information.
- SIM 05/2002/59 Safe working on vessels – Star Chamber bid for targeting priority topics jointly with the Maritime and Coastguard Agency – redundant but still contains useful information
- SIM 05/2003/56 Container Top Safety Frames
- SIM 05/2004/54 Designing in health and safety at ports: Project for 2004/05 – still contains useful guidance

- SIM 05/2004/55 Leader ports and airports: Project for 2004/05 – still contains useful guidance
- SIM 05/2005/09 Handling containers with slewing cranes
- DIS 07 Safe working on top of containers on board ship

Activity	**IEE**	**Pre Harm Pr**
Working on container tops, no preventative measures	PR /PN	x
Working on container tops using fall arrest equipment. Degree of risk depends on height, means of rescue	PN/IN	
Stevedores working at lashing stations where there is risk of a significant fall. Note: if seamen are seen working in similar conditions inspectors should seek out the ships master and request that they stop and make clear that they will be contacting MCA	Pr /PN	x
Unsafe access to vessel	PN	
Unprotected edges into holds/from cargo.	PN/IN	
Inadequate lighting during dock work in areas with risk of significant falls	IN	

Air Transport

Air transport specific issues

- Aircraft (a/c) maintenance, including helicopters**.** Suitability of gantries, scaffolding, work platforms, steps for minor maintenance.
- A/c turnaround - Service vehicles; catering high loaders; cargo loaders - suitability of loading platform and bridge. (See also WPT Topic pack)
- Security or cleaning staff etc on-board a/c (e.g. unguarded open doors, open inspection hatches etc
- Fall protection during de-icing, refuelling, replacement of navigation and other lights etc
- Guarding of air bridge access
- Access to aircraft baggage holds

References

- SIM 05/2002/52 Safe external access and working platforms at aircraft during maintenance
- SIM 05/2003/58 Safe external access and working platforms at helicopters (rotating wing aircraft) during maintenance;
- SIM 05/2004/13 Safe access to aircraft for catering operations
- 05/2005/05 Preventing falls from height from, or when opening or closing, aircraft doors
- BS:EN 1915 Aircraft ground support equipment – general requirements.
- BS:EN 12312 Aircraft ground support equipment – specific requirements.
- Aircraft Turnround HSG209
- Memorandum of Understanding between HSE and CAA on enforcement responsibilities on and around the aircraft

Activity	**IEE**	**Pre-harm Pr**
Risk of falls during a/c and helicopter maintenance.	PR /PN	x
Inadequate/badly maintained edge protection or access platform at any access equipment such as	PR /PN	x

catering trucks, ambulifts, cargo loaders where there is a risk of injury		
People working on board aircraft in the vicinity of unguarded open doors.	PN	
Persons accessing a/c hold via belt loader with no edge protection/protection only on one side	PR/PN	
No safe system of work between airline and ground handler for opening/ closing aircraft doors	IN	

Window Cleaning

Target Areas
Falls from Ladders

Collapsing cradles and falls from window ledges/sills also occur

Due to advances in technology and industry working practices, water fed pole systems are now a viable alternative to ladder use in certain circumstances. Work is underway with the industry on a statement on ladder use for window cleaning to clarify the position. Ladders are not prohibited and access equipment for window cleaning activities should be selected by risk assessment on a case by case basis. However, it is unlikely that a risk assessment for the selection of access equipment for window cleaning will identify ladders as being suitable for windows above first floor level.

The Information Sheet MISC 613 'Safety in window cleaning using portable ladders' has been withdrawn.

Warehousing

Target Areas

- Storage of goods on mezzanine floors - consider; the design of storage area and load bearing capacity; safe access/egress; edge protection and means for the transfer of goods/stock.
- Access to goods/stock on racking or shelving - consider; the inappropriate/unsafe use of ladders; climbing on racking or shelving which is not acceptable.
- Stocktaking.
- Maintenance activities.

Within the warehousing industry, falls are responsible for 14% of RIDDOR reported major injuries. The publication HSG 76 is under review and the second edition will have a chapter specifically dedicated to the management of the risks from falls.

Entertainment

References
Working at heights in the broadcasting and entertainment industries: EIS 6

CENTRAL AND LOCAL GOVERNMENT, EDUCATION AND RESEARCH (CALGER)

Education

Target Areas for Action

- Use of access equipment for general maintenance work and work with lighting rigs, drama equipment etc.

    - Control of the use of this equipment by students e.g. preparing for drama events, concerts etc. Use by students may be acceptable providing there is adequate supervision and they have been suitably trained. However, equipment should not be left unattended. Teaching and ancillary staff (e.g. caretakers, technicians) who use the equipment should be trained to do so. In Local Authority run schools the LA should have provided the schools with detailed advice and guidance on work at height and suitable training should have been provided for caretakers and others who may use the equipment.

    - Caretakers/Site Managers/Premises managers may be particularly at risk since they will often be working alone and control of their work methods is likely to be poor. Numerous accidents have occurred when caretakers have fallen from unsecured ladders e.g. when clearing gutters, using roof storage areas, doing minor maintenance work.

- School sites where there are low flat roofs. Pupils may climb onto flat roofs to retrieve balls etc and trespassers may use the flat roofs and skylights as routes of entry into the school. Many skylights will be fragile. Reasonably practicable measures should be taken to improve the security of the site to prevent trespassing and measures can be taken to stop trespassers gaining easy access to flat roofs.

- Falls of pupils from school windows. The risk may be greatest in bedrooms in boarding schools. Such falls can be prevented by fitting suitable window restrictors.

- Pupils gaining access from bedrooms onto roof areas. Fatal accidents have occurred when pupils have tried to move onto the roof to smoke, drink etc undetected. Suitable window restrictors can prevent such access.

Schools providing window restrictors should have a system to check they are still functioning correctly since they can often be damaged by pupils.

Low falls amongst teachers and classroom assistants are a particular problem during activities such as setting up classroom displays, opening high windows and accessing storage areas. If such activities cannot be avoided, appropriate access equipment should be provided such as appropriately maintained stepladders and kick stools rather than using classroom furniture for access.

References

Contractors in schools: IACL 98

CONSTRUCTION SECTOR

Target Areas for Action

Maintenance and cleaning operations by non-construction inspectors at fixed workplaces, with particular emphasis on the safe use of access equipment, such as, ladders, towers and access scaffolds, and the planning of the work. Areas for inspection may include general maintenance, roof repair, and gutter cleaning. See Section 1.3 'Inspecting Construction Work' for more information.

Inadequate precautions for managing contractors. See template Notice 3 (Section 6)

Enforcement
A selection of Prohibition Notices are included in Section 6 *Template Notices* covering: provision of precautions for erecting / dismantling / altering scaffolding; provision of precautions for work on fragile roofs; provision of precautions for work at roof edges; unsafe scaffolds (missing guard rails etc, not securely tied, scaffold of insufficient strength and rigidity e.g. bracing/spacing of standards).

References
Health and Safety in Construction, HSG 150 3rd edition;
Health and Safety in Roof work: HSG33 (undergoing revision);
Work at Height Regulations 2005, SI 2005, No.735;
The Work at Height Regulations 2005 – A Brief Guide INDG401;
Question and answer brief for the Construction Industry on the Work at Height Regulations 2005
Working on Roofs: INDG284 (undergoing revision);
General access scaffolds and ladders: CIS No 49;
Tower scaffolds: CIS No 10 (rev 2);
The use of fall arrest equipment whilst erecting, altering and dismantling scaffolding: Note SG4:You, National Access and Scaffolding Confederation (NASC).
Advisory Committee for Roof work ACR [CP] 002:2005 Guidance Note for Safe Working on Fragile Roofs

4.2 LA SECTORS

It is recommended that LA and HSE inspectors take note of the guidance in sections 4.1 and 4.2 as many of the activities which involve risk of falls from height occur in both HSE and LA enforced premises, e.g. window cleaning, storage etc. Many of the references listed in section 4.1 and section 5 will be relevant to LA sectors e.g. manufacturing, food, wood, window cleaning etc.

See HSE Extranet for current guidance and LAC's on the topic. https://extranet.hse.gov.uk/

Retail Sector

Target Areas for Action

- Inadequate provisions to allow safe access to storage and displayed goods and inadequate arrangements to prevent falls while accessing stock in particular during restocking and stock taking. Unsafe use of ladders.
- Tyre & Exhaust premises, in particular access to stock stored at high level and loading/unloading of stock onto high level racking.
- Inadequate access provisions to allow safe access to occasional storage of seasonal displays etc on office/plant roofs.
- Inadequate provision or unsafe practices for maintenance work by employees or contractors e.g. window cleaning, window dressing, and signage.
- Inadequate provisions to ensure safe access to roofs for access to e.g. air conditioning units, refrigeration plant and lifting machinery.
- Lack of signage and controls regarding access to fragile roofs.
- Poor access arrangements and edge protection when accessing office roofs for storage.

Warehouse Sector

Target Areas for action

- Unsafe access to mezzanine floors and lack of adequate edge protection.
- Poorly planned storage that encourages unsafe practices e.g. climbing racking or pallets to access goods.
- Inadequate provisions to allow safe access to storage and displayed goods and inadequate arrangements to prevent falls while accessing stock in particular during restocking, order picking and stock taking. Unsafe use of ladders.
- Inadequate provisions to ensure safe access to roofs for access to e.g. air conditioning, refrigeration plant and lifting machinery.
- Lack of signage and controls regarding access to fragile roofs.
- Poor access arrangements and edge protection when accessing office roofs for storage.
- Inadequate provision or unsafe practices for maintenance work by employees or contractors.
- Unsafe practices giving rise to a risk of fall during deliveries and loading of vehicles (See workplace transport pack).
- Lack of maintenance, demarcation, lighting and guardrails on high-level walkways.

Office Sector

Target Areas for Action

- Inadequate provision or unsafe practices for maintenance work by employee or contractor e.g. window cleaning, general maintenance, caretakers activities.
- Inadequate provisions to ensure safe access to roofs for maintenance/repair of e.g. air conditioning units, refrigeration plant, lifting equipment etc.
- Unsafe means of access to documents stored at high level.
- Unsafe access and inadequate fall protection for rooftop gardens/staff rest areas.
- Ensure that access to lift shafts is prevented by having safe systems of work/ risk assessments for lift breakdowns, inspection, maintenance etc.

Leisure Sector

Target Areas for Action

- Unsafe systems of work or lack of risk assessment for access to lighting rigs, sound systems, flys etc in theatres & nightclubs.
- Unsafe procedures for building up and breaking down of marquees, sports domes and circuses.
- Unsafe practices or lack of risk assessments for maintenance and other work at height in leisure centres.
- Ensure prevention of falls from height during team building/outward bound activities i.e. ensure adequate risk assessment, training, equipment, supervision etc is provided.
- Ensure prevention of falls from height during bungee jumping i.e. ensure adequate risk assessment, training, equipment, supervision etc is provided.
- Ensure appropriate maintenance for ropewalks, swings, climbing frames and other children's play equipment.
- Ensure safe access and fall protection for viewing areas/galleries
- Consider fall prevention during the design of entertainment venues such as paintball operations.
- Ensure suitable access arrangements are provided for the maintenance and cleaning of enclosures in zoos.

Catering Sector

Target Areas for Action

- Inadequate access for high level cleaning e.g. extraction systems and general cleaning.
- Inadequate access for maintenance of e.g. air-conditioning units, high-level fans.
- Inadequate provision or unsafe practices for maintenance work by employee or contractor e.g. window cleaning.
- Unsafe means of access and egress into cellar and barrel drops/hatches and lack of safe practices during deliveries to prevent falls down hatches.

Accommodation Sector

Target Areas for Action

- Inadequate provision or unsafe practices for maintenance and repair work by employee or contractor e.g. window cleaning, caretakers activities.
- Inadequate precautions to prevent falls from windows in e.g. nurseries and residential care homes.
- Unsafe means of access and egress into cellars and loft storage.
- Inadequate provision of guardrails, hand rails and maintenance of steps to prevent falls down stairs.

References
LAC 79/6 Falls from windows in health and social care

Consumer Services Sector

Target Areas for Action

- Inadequate provision or unsafe practices for maintenance and repair work by employee or contractor.
- Poor access arrangements and edge protection when accessing office roofs for storage.
- Unsafe access to mezzanine floors and lack of adequate edge protection.
- Lack of signage and controls regarding access to fragile roofs.
- Churches – prevention of falls into graves.
- Ensure adequate precautions to prevent falls during gardening e.g. hedge cutting etc.
- Inadequate precautions for accessing drainage systems and confined spaces to reduce risk of falls from height.
- Unsafe practices for accessing loft and roof spaces to provide services such as pest control.

ENFORCEMENT

For all LA sectors the following initial enforcement expectation is guidance only. (In relation to the sector target areas for action).

Failure to carry out risk assessments - formal letter - Notice
Unsafe Systems of work – Prohibition Notice – prosecution
Untrained staff – formal letter – Notice
Damaged equipment – formal letter – Notice

Local authorities should refer to their authorities enforcement policy, the enforcement concordat (where adopted) the risk control indicators scored during inspection and the enforcement management model (EMM) when considering appropriate action.

SECTION 5 - CROSS SECTOR REFERENCES

The following is a list of references, which have cross sector relevance. Sector specific references are included in Section 4 Sector Information. The construction industry references have been included in this section because they have cross Sector relevance.

General

HSE and Local Authority training presentations
HSE and Local Authority Inspectors have had formal training on the Work at Height Regulations. The presentations are listed below. They have been made available on the Falls From Height Website. The files are a PDF copy of powerpoint presentations including speaker's notes.

Part 1&2: Introduction to the Regulations and definitions
Part 3: Legal requirements
Part 4: Case Studies
Part 5: Fall protection (Schedules 2-5)
Part 6: Ladders

The Work at Height Regulations 2005 – A Brief Guide INDG401

Workplace (Health, Safety and Welfare) Regulations 1992: Approved Code of Practice and guidance.

Workplace Health, Safety and Welfare: A short guide for managers: INDG 244 (Rev1)

Management of health and safety at work Regulations 1999: Approved Code of Practice: 2000.

Personal Protective Equipment at Work Regulations 1992 (as amended): Guidance on Regulations (Second edition).

Provision and Use of Work Equipment Regulations 1998: Approved Code of Practice and guidance.

Health and safety training: What you need to know: INDG 345.

Signpost to the Health and Safety (Safety Signs and Signals) Regulations 1996:
INDG 184-L.

Managing contractors
Managing contractors: a guide for employers ISBN 0 7176 1196 5

Equipment
See Section 4 Construction reference list for more information on equipment.

OC 314/20 Preventing falls from boom-type mobile elevating work platforms (MEWPS) and selection and use of fall protection.

OC 200/30 Safe use of Ladders and Stepladders.

INDG402 Safe Use of Ladders and Stepladders: An Employers guide; INDG405 Top Tips for Ladder Safety/Pocket Card.

Guidance Note PM 28 (3rd edition) Working platforms on forklift trucks.

INDG 367 Inspecting fall arrest equipment made from webbing or rope.

CDM Client Duties
Having construction work done? Duties of clients under the Construction (Design and Management) regulations 1994: MISC 193

Construction (Design and Management) Regulations 1994: The role of the client: CIS 39.

Construction Information
Health and Safety in Construction: HSG 150 3rd edition.

Health and Safety in Roof work: HSG33 (under revision).

Working on Roofs: INDG284 (under revision).

Inspections and reports: CIS 47.

Construction health and safety checklist: CIS 17.

Safe use of ladders CIS 2 (rev).

General access scaffolds and ladders: CIS No 49.

Tower scaffolds: CIS No 10 (rev 2).

Question and answer brief for the Construction Industry on the Work at Height Regulations 2005

Advisory Committee for Roof work ACR [CP] 002:2005 Guidance Note for Safe Working on Fragile Roofs

SECTION 6 – TEMPLATE NOTICES

The Notices listed below are for reference only. The contraventions, opinions and Schedules are included later in this Section. They should not be used without firstly ensuring that the Notices reflect the particular circumstances found on site.

More Notices may be included in the future and sent to inspectors.

1. Identify work at height risks and appropriate precautions. (IN)

2. Identify work at height that is carried out from portable ladders [or step], and decide whether the ladders are suitable for the work. (IN)

3. Implement a system for managing contractors. (IN)

4. Marking fragile roofs. (IN)

5. Inadequate precautions at open edges. (IN)

6. No handrail at the open side of a staircase. (IN)

7. Providing precautions for erecting / dismantling / altering scaffolding. (PN)

8. Providing precautions for work on fragile roofs. (PN)

9. Providing precautions for work at roof edges. (PN)

10. PN - Unsafe scaffold - Missing guard rails etc; not securely tied; or scaffold of insufficient strength and rigidity. (PN)

1. IN - Identify work at height risks and appropriate precautions

You .....are contravening the following statutory provisions:
Health and Safety at Work Etc Act 1974 Sections 2 and 3 *[delete as appropriate]*; Work at Height Regulations 2005, Regulation 6; Management of Health and Safety at Work Regulations 1999, Regulation 3.

The reasons for my said opinion are:
that a suitable and sufficient assessment of the risk to the safety of your employees *[and others not in your employment - delete / add as appropriate]* of falling a distance liable to cause personal injury has not been made to identify the preventive and protective measures needed to ensure their safety so far as is reasonably practicable.

Schedule:

To comply with this Notice:

Either

1. Assess the risk to employees [*and non employees - delete / add as appropriate*] of falling a distance liable to cause personal injury. The assessment should;

(a) Identify who is at risk - consider all people (e.g.. your employees, contractors, maintenance and cleaning staff, managers, members of the public [*delete* / *add any others, relevant to the particular site*])

(b) Identify any people who may be particularly vulnerable (e.g.. young/inexperienced people, contractors who may be unfamiliar with your premises and any risks posed by your premises and activities).

(c) Identify how people are at risk - look at all work done or likely to be done, in the future at heights from which a person could fall a distance liable to cause personal injury (e.g. changing light bulbs, cleaning high surfaces, repairing and maintaining roof fans, accessing high warehouse shelves, building work, roof repair; access to high work stations should also be considered *[delete / add as appropriate]*). Look at how the work is actually done, not how you think it is being done. Use previous incidents/near misses as well as the law, Approved Codes of Practice, and other guidance to help your identification process. See covering letter for details of relevant publications. *[provide details of relevant publications in covering letter]*

(d) Identify existing preventive/protective measures.

(e) Identify what further action, if any, needs to be taken to reduce risk sufficiently.

And

2.

Record the significant findings of the assessment under 1 above and any group of your employees identified by the assessment as being especially at risk *[delete if less than 5 employees]*.

OR

3. Any other equally effective means of complying may be used.

The following paragraph to be included in the covering letter:

The assessment should consider the following hierarchy of control measures: - **eliminate** the need to work at height. Where this is not reasonably practicable ensure **fall prevention** by utilising an existing place of work that complies with Schedule 1 of the Work at Height Regulations 2005, or use work equipment to prevent a fall. Where this is not reasonably practicable, utilise work equipment that **minimises the distance and/or consequences** of a fall. Finally, provide **additional training or instruction or take other additional suitable and sufficient measures** to prevent a fall.

The assessment should also consider arrangements for planning work at height, selecting, using and maintaining suitable work equipment, ensuring the people doing the work are competent, and arrangements for managing and supervising the work.

2. IN - Identify work at height that is carried out from portable [or step] ladders, and decide whether the ladders are suitable for the work.

You .....are contravening the following statutory provisions:
Health and Safety at Work etc Act 1974, Sections 2 (1); Work at Height Regulations 2005, Regulation 6 and 7; Provision and Use of Work Equipment Regulations 1998, Regulation 4.

The reasons for my said opinion are:
that a suitable and sufficient assessment of the risk has not be made to identify the suitability of portable *[or step - delete / add as appropriate]* ladders for work done at height where a person could fall a distance liable to cause personal injury.

Schedule:

To comply with this Notice: -

Either

1. Identify all foreseeable work done at a height where a person could fall a distance liable to cause personal injury, which is or may be, carried out from portable *[or step - delete / add as appropriate]* ladders.

And

2. Decide whether the work identified in 1 above can be done more safely without working at height.

And

3. If the work cannot be done more safely without working at height, decide whether the said ladders are suitable for the work (i.e. whether the work could, so far as is reasonably practicable, be done using safer equipment - e.g. properly erected mobile tower scaffolding, or mobile elevating working platforms [MEWP] operated by competent people).

Or

4. Any other equally effective means of complying may be used.

The following paragraph to be included in the covering letter:

Account should be taken of: -

a) the place where the ladder will be used

e.g. consider whether the ladder can be:

- securely fixed at the top; secured at the bottom; footed; ladder stabilising devices can be used.
- (NB: footing is not considered effective for ladders longer than 6 metres);
- placed on a firm level surface;
- placed at a suitable angle (ideally about 1 metre out from the building for every 4 metres in height);
- the top of the ladder can be rested against a solid surface (spreader devices or similar can be used to span windows).

b) the purpose the ladder will be used for

e.g. consider whether:

- the work involves over-reaching which may destabilise the ladder. This is particularly important for stepladders that are not designed for side loading;
- the user can keep 2 feet and 1 hand on the ladder, or another handhold is available for 1 hand;
- the user will need to carry tools (tool belts may be useful here).

Jobs such as removing cast iron guttering, carrying rolls of roofing felt, extensive high-level painting, demolition work, or any work which cannot comfortably be reached from a ladder should be done from other safer equipment (e.g. scaffolding or MEWPs).

c) the ladder

e.g. consider whether the ladder is:

- designed to hold the weight needed for the job;
- long enough; and
- *[for step ladders]* whether the top platforms of stepladders are designed for such use.

3. IN - Implement a system for managing contractors.

You .....are contravening the following statutory provisions:
Health & Safety at Work, etc Act 1974, Sections 2 (1), 3 (1) & 3 (3);
Work at Height Regulations 2005, Regulation 4 and 5.

The reasons for my said opinion are:
that so far as is reasonably practicable, a safe system of work is not in place for managing contractors carrying out work for you at a height from which a fall is likely to result in personal injury.

Schedule:

To comply with this Notice: -

Either

1. Implement a system for managing contractors who carry out work for you at a height from which a fall is likely to result in personal injury.

The system should set out the arrangements for:

a) Planning the said work at height done by contractors, such that: each job is defined; the fall from height risk is identified; consideration is given to eliminating the need to do the work at height (or if this is not reasonably practicable, the precautions for controlling the risk of falling are identified); the precautions needed are specified; the job is discussed with the contractor (if selected). The aim of planning should be to ensure that the work is carried out without putting the contractors or your own employees' safety at risk.

b) Choosing contractors who are competent to do the work to be done, e.g. by asking questions to decide their competence; checking evidence of competence; obtaining method statements which detail how they will carry out the work safely; deciding if sub-contracting is acceptable (and if so, how will safety be ensured?).

c) Managing contractors while they are on site. This includes monitoring their work to make sure site rules are being followed; the job is being done safely, as agreed; and, when the work is finished, the site is left in a safe condition. This may involve making sure that contractors sign in or out, and naming a site contact so that their presence on site is always known.

d) Reviewing the contractor and the work once the job is completed, to decide whether your system for managing contractors should be revised in the light of experience. This will include consideration of: how effective your planning was; how the contractor performed; how effective the communication, supervision/monitoring systems worked; whether any changes are needed to improve the management of contractors.

e) Your organisational structure for ensuring that the system for managing contractors actually works in practice. This will include specifying who is responsible for: planning the work done by contractors; choosing and appointing contractors; communicating with contractors; monitoring contractors while they are on site; reviewing the work and your system for managing contractors.

f) Ensuring those with responsibilities for managing/working with contractors have enough knowledge, skill and experience (i.e. competence) to carry out their responsibilities

effectively. This will involve consideration of: training needs; providing information on the hazards and precautions for work at height.

g) Methods of dealing with contracting firms or their individual employees who fail to work at height safely (e.g. removal from approved lists; loss of contract; financial penalties). These should be made clear to the contractors before the work starts.

h) Ensuring compliance with the Construction (Design & Management) Regulations 1994 is achieved when necessary.

And

2. Record the system and arrangements required under paragraph 1 above. *[delete if less than 5 employees]*

Or

3. Any other equally effective means of complying may be used.

The following paragraphs to be included in the covering letter:

For more information on the duties of clients under the Construction (Design & Management) Regulations 1994, please see *Managing Health & Safety in Construction: Approved Code of Practice and Guidance* HSG 224 ISBN 0 7176 2139 1; *Having construction work done? Duties of clients under the Construction (Design and Management) Regulations 1994:* MISC 193*; Construction (Design and Management) Regulations 1994: The role of the client:* CIS 39.

For further information on managing contractors, please see the HSE booklet *Managing Contractors: A Guide for Employers* ISBN 0 7176 1196 5.

4. IN – Warnings regarding fragile surfaces.

You .....are contravening the following statutory provisions:
Health and Safety at Work etc Act 1974 Section 2 and 3; Work at Height Regulations 2005, Regulation 9(3).

The reasons for my said opinion are:
That areas made of fragile surfaces, through which a person might fall a distance liable to cause personal injury, have not been provided with warning notices at their approaches or where this is not reasonably practicable, persons are not being made aware of their presence by other means.

Schedule:

To comply with this Notice: -

1. Identify all fragile surfaces through which a person might fall a distance likely to cause personal injury.

2 Affix prominent warning notices at approaches to fragile surfaces identified in 1 above. Signs should comply with the Health and Safety (Safety Signs and Signals) Regulations 1996.

Or

3. If the provision of warning notices is not reasonably practicable, provide systems of work to ensure persons are made aware of the presence of fragile surfaces by other means.

Or

4. Any other equally effective means of complying may be used.

The following paragraphs to be included in the covering letter:

A fragile surface is one that would be liable to fail if any reasonably foreseeable loading were to be applied to it. This includes a persons weight and any materials being used. All glazing and asbestos cement or similar sheeting should be treated as being fragile unless there is firm evidence to the contrary. Consideration should be given to the age of materials that may have become fragile through corrosion etc.

Made aware by other means, includes the provision of information, instruction and training to ensure **all** workers understand where such materials are present and what precautions are required for work on or near fragile surfaces. i.e. safe systems of work. Permit to work systems can form part of these precautions.

For more information to help decide whether a particular material used in particular circumstances can be considered fragile or not, please see the enclosed copy of Appendix 4 from the HSE booklet *Health and Safety in Roof Work* HSG 33 ISBN 07176 1425 5

For more information on the Health and Safety (Signs and Signals) Regulations 1996, please see the attached leaflet *Signpost to the Health and Safety (Signs and Signals) Regulations 1996* INDG 184L.

5. IN - Inadequate precautions at open edges.

You .....are contravening the following statutory provisions:
Health and Safety at work etc Act 1974 Section 2 (1); Work at Height Regulations 2005, Regulation 6(3) and 10.

The reasons for my said opinion are:
that suitable and effective measures have not been taken to prevent a person falling a distance likely to cause personal injury from the open edge of the.....[*identify the edge*].

Schedule:

To comply with this Notice: -

EITHER

1. At the open edges of the *[identify the edge]*, provide means of protection of sufficient dimension to prevent the fall of persons or materials. Means of protection include top guardrails and midrails, toe boards and other barriers.

Means of protection should be secure, substantial and strong enough to restrain any person or object liable to fall against it. Untensioned chains, ropes and other non-rigid materials should not be used.

OR

2. Any other equally effective means of complying may be used.

The following paragraph to be included in a covering letter:

In relation to work at height not involving construction work, there are no prescriptive dimensions specified in the Work at Height Regs 2005 (WAHR) for means of protection. However for buildings, factories, warehouses, offices, public buildings, retail premises etc. sufficient dimensions for guard rail or similar barriers will be achieved by complying with current Building Regulation requirements which are 1100 mm. For plant, machinery and other work equipment in non-construction, sufficient dimension will be achieved by compliance with any relevant EN standard or the Supply of Machinery Safety Regulations 1992 (SMSR) Essential Health and Safety Requirements (EHSR) which specify, ‘designed and constructed to avoid falls’.

In non-construction work, any guardrail heights below 950 mm should be justified on the basis of risk assessment.

In relation to construction work, WAHR specify a top guardrail height of 950 mm and a mid rail should be positioned so that the gap between it and other means of protection does not exceed 470 mm.

There is no prescriptive requirement for toe board heights in either construction or non-construction work in WAHR. However sufficient dimension for toe board height is 100 mm.

6. IN - No hand rail at the open side of a staircase.

You .....are contravening the following statutory provisions:
Health and Safety at Work etc Act 1974 Section 2 (1); Workplace (Health, Safety and Welfare) Regulations 1992, Regulation 12.

The reasons for my said opinion are:
that suitable and effective measures have not been taken to prevent persons from falling a distance likely to cause personal injury from the open sides of the stairway to the .....[*identify the place*].

Schedule:

To comply with this Notice: -

Either

1. At the open sides of the staircase, provide an upper handrail at 900 mm or higher and a lower handrail.

Or

2. Any other equally effective means of complying may be used.

7. PN - Providing precautions for erecting / dismantling / altering scaffolding.

hereby give you notice that I am of the opinion that the following activities namely:
Work being undertaken on the erection/dismantling/alteration *[delete as appropriate]* of scaffolding.

.....and that the matters which give rise..... to the said risks are:
that persons can fall from height while undertaking this work activity

and that the said matters involve contravention of the following statutory provisions:
Health and Safety at Work etc. Act 1974, Sections 2 and 3; Work at Height Regulations 2005, Regulation 6.

because
You have failed to provide suitable and sufficient precautions to prevent persons from falling while erecting/dismantling/altering *[delete as appropriate]* scaffolding. For example, the provision and use of safety harnesses and associated equipment.

8. PN - Providing precautions for work on fragile roofs.

hereby give you notice that I am of the opinion that the following activities namely:
Work on or near the fragile roof.

.....and that the matters which give rise..... to the said risks are:
Persons are liable to fall through the fragile roof.

and that the said matters involve contravention of the following statutory provisions:
Health and Safety at Work etc. Act 1974, Sections 2 and 3; Work at Height Regulations 2005, Regulation 9.

because
you being an employer of persons involved in construction work have not taken suitable and sufficient steps *[specify e.g., working platform, guardrails, safety nets, birdcage scaffold, harness and line system etc]* to prevent persons from falling, through the fragile roof, this being a matter within your control.

9. PN - Providing precautions for work at roof edges.

hereby give you notice that I am of the opinion that the following activities namely:
Work on the roof

.....and that the matters which give rise..... to the said risks are:
persons are liable to fall a distance liable to cause personal injury from the edge of the flat/sloping roof

and that the said matters involve contravention of the following statutory provisions*:*
Health and Safety at Work etc. Act 1974, Sections 2 and 3; Work at Height Regulations 2005, Regulation 6.

because
suitable and sufficient steps have not been taken *[specify e.g., guardrails, toe boards etc.]* to prevent, so far as is reasonably practicable, persons from falling from the edge of the roof.

10. PN - Unsafe scaffold - Missing guard rails etc; not securely tied; or scaffold of insufficient strength and rigidity.

hereby give you notice that I am of the opinion that the following activities namely:
Work on the scaffold *[identify it]*.

.....and that the matters which give rise..... to the said risks are:
the scaffold is not a safe place of work.

and that the said matters involve contravention of the following statutory provisions:
Health and Safety at Work etc. Act 1974, Sections 2 and 3; Work at Height Regulations 2005, Regulation 6(3),8(a) and 8(b).

because
suitable and sufficient steps have not been taken to prevent, so far as is reasonably practicable, any person from falling *[refer to specific defects e.g., guardrails, missing boards etc.]*.

OR the scaffold is not securely tied.

OR the scaffold is not of sufficient strength and rigidity for the purpose for which it is being used *[refer to specific defects e.g. bracing/spacing of standards]*.

SECTION 7 - INSPECTOR CHECKLIST

The IEE in the checklist is a guide only. Enforcement should be in accordance with current enforcement policy. The checklist is not intended to cover all work at height issues and inspectors should be aware of this during visits.

A tick in the pre harm prosecution (no accident) column indicates an instance where a prosecution may be appropriate providing the EMM and enforcement Policy Statement are followed. However the absence of a tick does not preclude prosecution. A tick does not indicate a prosecution must be followed. It indicates instances where during the enforcement decision-making process, a pre harm prosecution may be considered.

TARGET AREA 1 - Identification	IEE	Pre harm Pr.
Identification		
Has the duty holder identified activities and precautions involving work at height. Has the hierarchy been considered when identifying such activities and precautions. (See Section 2.2.1 for guidance on the hierarchy)		
Has the duty holder considered work at height, which is conducted away from site by peripatetic workers? Are appropriate precautions provided including arrangements for supervision and training in the use of equipment?		
Has the duty holder carried out a risk assessment and identified work at height activities and appropriate precautions, including work, which is incidental or ancillary to the main activity? (Including peripatetics)? (See template Notice 1)	IN	
Fragile Surfaces		
Has the duty holder identified fragile surfaces on site (e.g. asbestos cement roof sheets, plastic sheets, roof lights, bridged materials in silos, crusted surfaces of sludge lagoons etc) and have suitable precautions been identified for any work on or near fragile surfaces and to prevent inadvertent access onto them?		
Is access to fragile surfaces prohibited except under controlled conditions (e.g. governed by a permit to work system)?		
How are fragile roofs/gutters cleaned?		
Work is being carried out on or near to fragile surfaces and guardrails, coverings or other suitable precautions have not been provided, (See template Notice 8)	PN	✓
Are warning signs fixed at the approach to fragile roofs when access is needed or foreseeable e.g. cleaning valley gutters? (See template Notice 4)	IN	
TARGET AREA 2		
Equipment		
General		
Does the duty holder have a system in place to ensure that appropriate access equipment is selected for working at height given the circumstances of the job? Risk assessment should consider factors such as the duration, complexity of the work, conditions of the surface etc. when selecting suitable work equipment. (See guidance on some principles for the selection		

of work equipment Section 2.3.1)		
Have people who are expected to use work equipment received appropriate instructions and training in how to use it safely?		
Is work equipment appropriately inspected and maintained?		
Work at height **is being carried out** and there are no precautions against falling and there is a risk of a person falling a distance liable to cause personal injury e.g. work at a roof edge, not justified us of a ladder or kick stool. (See template Notice 9)	PN	✓
Evidence indicates work at or near open edges will be done where a person could fall a distance liable to cause personal injury e.g. at a mezzanine floor/storage area above an office. There are no precautions against falling from an edge. (See template Notice 5)	IN	
Edge Protection		
Guard rails, mid rails toe boards or similar barriers should be rigid enough to prevent a person or materials falling and their dimensions should comply with current standards (See Section 2.3.2)		
Stairs		
Provided with robust handrails? (See template Notice 6)	IN	
General Scaffolds		
Erected, altered and dismantled by competent people?		
Provided with edge protection as listed above?		
Provided with fully boarded working platforms?		
Inspected by a competent person at least once per week?		
Tower Scaffolds		
Are there any tower scaffolds on site? (Even if dismantled or hired)		
Have persons erecting and using towers had appropriate training?		
Are guardrails and toe boards provided?		
Is the height of the tower scaffold no more than 3 times the minimum base dimension? (or in accordance with the manufacturers instructions on height to base ratio)		
Are wheels locked when in use and is the working platform empty when moved?		
Is safe access to the working platform provided? i.e. through internal trap doors		
If a tower in use has any of the following faults, no guard rails and toe boards, no safe working platform, height exceeds 3 times the base dimension and the manufacturers height v base dimension cannot be clarified by the duty holder and the tower is not tied to an adjacent structure, or the tower is not vertical or a ladder is being used from the top of it.	PN	✓
Mobile Elevating Working Platform (MEWP) See OC 314/20		
Should be **safe plant** i.e. correct type for the job, provided with adequate guard rails, toe boards, thoroughly examined in the last 6 months, properly maintained and inspected.		
Should be used on a **safe site** i.e. firm level ground which is free from slopes, holes etc and can cope with the load and segregated from other site traffic to avoid collisions.		
Should have a **safe operator** who is trained and experienced.		

No segregation, MEWP or part of it, seen working at height in a live highway e.g. street lighting work, bridge repair and there is a risk of vehicle impact. Poor on site segregation and unsafe practices seen e.g. driving at speed in vicinity of MEWP being used for work at height.	PN	
Ground conditions poor or not considered so there is a risk of an overturn or collapse e.g. failure to establish strength of ducts, manhole covers, suspended floors or MEWP wheels or outriggers seen sinking into the ground.	PN	
No fall protection equipment provided or incompatible/inappropriate equipment used and unsafe practices seen e.g. climbing onto mid rails and or leaning over the edge to the extent that there is a risk of a fall. Inadequate anchorages in MEWP for fall protection. (Note, if there is still a residual risk of impact or persons falling, the expectation is that fall protection equipment should still be used).	PN	
After dealing with immediate segregation issues as detailed above, safe system of work may be needed re segregation.	IN	
No evidence of MEWP being thoroughly examined in the last 6 months, no defects visible.	IN	
Working Platforms on Fork Lift Trucks		
Non-integrated platforms are acceptable for occasional, not routine use for work at height. Preference should be given to purpose built equipment for work at height such as tower/general scaffolding and MEWPS.		
Platform should be compatible with the truck.		
Platform should be secured to the forklift truck.		
Should have adequate edge protection as described above.		
Should be thoroughly examined every 6 months.		
Truck operators should be properly trained.		
If people are being raised or lowered on the forks or a pallet to work at height. (See template Notice 7, Section 6 Workplace Transport Topic Pack)	PN	✓
Where training is taking place using rope evacuation equipment from mechanical handling equipment and there is no safety rope and a competent person is not doing training. See OC 282/31	PN	
Where training is not taking place and there is no risk assessment of the possibility of an operator being stranded at high level and rope evacuation equipment is available and will be used if an operator becomes stranded and the operator has not received appropriate training from a competent person to ensure a safe rescue. See OC 282/31	IN	
Work Restraint		
Must ensure the wearer cannot reach a position in which a fall could occur		
Collective Safeguards for arresting Falls		
Nets and airbags should be positioned as close to the level at which persons are working so that any fall height is minimised.		
Should be sufficient clearance below the net to avoid injury due to a collision with an obstruction if a person fell into the net.		
Nets should not have any gaps at their edges through which a person could fall.		

Nets should be securely anchored.		
Requirements for Personal Fall Protection Systems		
Personal fall protection systems should only be used if risk assessment demonstrates that the work can be done safely while using the equipment and the use of other, safer (collective) work equipment is not reasonably practicable.		
Users of personal fall protection systems should be trained.		
Components of personal fall protection systems i.e. harnesses, lanyards, ropes, connectors, anchorages etc should be compatible, identifiable and regularly inspected.		
Fall arrest lanyards may need protection from sharp edges and there must be adequate clearance for the lanyard and energy absorber to deploy.		
Users must ensure inertia reel systems are anchored in accordance with manufacturers instructions. (usually above the user). (Often such systems are not designed for anchorage at foot level)		
Users of Fall arrest systems should have a rescue plan in place.		
Where lanyards are in use and there is visual evidence of significant defects or damage (cuts, abrasion see INDG 367)	PN	
Scaffolding (Not tower) is being erected/dismantled/altered with no safety harness and associated equipment. (See template Notice 7)	PN	
Harnesses and lanyards are used frequently and there is no inspection regime (See INDG 367) but no evidence of defects.	IN	
Ladders		
Question whether ladders/step ladders are the most appropriate equipment for access or a place of work given the circumstances (including duration) of the job. Would it be safer to use other work equipment e.g. tower scaffold?		
Have workers been instructed in the safe use of ladders e.g. 1 metre out for every 4 metres up, and the need to secure?		
Are adequate precautions in place to stop a ladder from slipping or falling i.e. tied? (Recent research has concluded that an un-tethered, naked ladder is unlikely to be able to provide sufficient stability to cope with the demands of a person getting on or off it at its upper reaches).		
Are ladders in good condition?		
Are ladders well maintained and inspected regularly?		
Portable leaning ladders are in use or are available for use and have defects such as splits in timber ladders, cracked welds at rung/stile connections on metal ladders, missing rungs, play between rungs and stiles, missing anti slip devices at the top and bottom, bent stiles at the bottom. (Note, for a pre harm prosecution to be considered, the defective ladder would have to be found in use and the defect would have to be obviously dangerous)	PN	✓
Signs of damage or defects that are not likely to result in imminent risk of serious personal injury e.g. minor dents in rungs. (IN requires an individual ladder to be inspected or an inspection system to be implemented by a competent person)	IN	
Ladders are available for use for work where a person could fall a distance liable to cause personal injury and consideration has	IN	

not been given to whether ladders are the most appropriate equipment for the work. (See template Notice 2)		
Homemade ladders are in use and the duty holder cannot demonstrate compliance with an appropriate standard.	PN	
TARGET AREA 3		
Contractors		
Does the duty holder use contractors (including for small scale work such as minor repairs, lighting maintenance, as well as large scale work like redecoration, construction/installation work)?		
Does the duty holder have appropriate arrangements for managing contractors in relation to H&S e.g. pre meeting, induction (site rules), establishing contacts, sign in sign out, segregation arrangements periodic monitoring of their work etc.?		
Has the duty holder enquired about a contractors competence to work at height? The following questions/examples will help. 1. What experience do they have for work at height. Ask for examples of previous work. Does the duty holder ask for references that include comment on H&S? 2. What equipment will they use? Seek evidence of training, inspection, and maintenance. 3. Are safety method statements/risk assessments required from contractors? (Can be a useful tool to monitor the work) 4. What are their arrangements for supervision while on site to ensure that 3 are followed during the work? 5. Are they a member of a relevant trade association?		
Is the duty holder aware of CDM Regs?		
Contractors are used regularly for work at height and no procedures exist for managing contractors. (See template Notice 3)	IN	