

TOPIC INSPECTION PACK

SLIPS AND TRIPS

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1. INSPECTION APPROACH AND ENFORCEMENT - SUMMARY

Over the last few years there has been considerable publicity, particularly in the food industry (including retail outlets), on preventing slips and trips and the control measures necessary to achieve this. For example, control of trailing cables has been well publicised. Any clear breach found in these workplaces will therefore indicate that either management has not followed published advice, or they failed to keep abreast of current safety issues. In either case, this may indicate significant management failings that need to be addressed. The requirements of the law in this area are very rigorous, and where risk remains it is likely that the legal requirements have not been fully met.

There are legal requirements which state that the floor, or surface of the traffic route, shall have no hole or slope, or be uneven or slippery, so as in each case, to expose any person to a risk to their health or safety. Care needs to be taken in not taking these requirements to extremes, but any floor clearly and significantly defective (i.e. large holes, loose and rocking paving slab, extremely slippery, e.g. ice, oil/food on steel or smooth tiles) or which has cables across walkways, should be considered as contravening a defined standard when working out the enforcement management model (EMM) initial enforcement expectation.

Inspectors should take action on slips and trips where a significant risk of injury to persons as a result of a slip or trip could be present. To determine whether there is significant risk consider the evidence – see aide memoire in section 2 for details.

In nearly all cases the benchmark used in the EMM will be nil or negligible. The fact that people may fall for reasons not connected with the floor/housekeeping (e.g. fall over their own feet or through illness) should not suggest other points on the benchmark range. If spillages and tripping hazards are properly controlled and floors have appropriate slip resistance, the risk of falling should not be significantly higher than in the normal environment. This will be an even uncontaminated floor without obstructions, comprising suitable flooring, or where footwear is used as an effective control.

Issue of a Prohibition Notice (PN) will generally be appropriate where there are added consequences of falling. For example; workforce carrying hazardous materials (e.g. chemicals or very hot liquids). In other cases the need for immediate action will usually be less and the appropriate action can be guided by the main body of the EMM.

1.1 Greater use of enforcement on slips and trips

Inspections may reveal breaches of duty that require action. Inspectors should act in a manner consistent with the HSE Enforcement Policy Statement (EPS) and EMM. Evidence should be collected to support enforcement action using normal procedures.

Enforcement of slips and trips issues has traditionally been at a fairly low level compared to other hazards, with local authorities generally being more likely to use formal enforcement. However, during recent slips and trips campaigns the level of enforcement activity on slips and trips increased, indicating that more inspectors feel confident to take formal enforcement on this issue. The greater use of enforcement based on the EMM, is a trend which the Slips and Trips Programme strongly supports. Inspection/enforcement guidance of a more practical nature was developed for the Watch Your Step campaign, and that guidance has been incorporated into this version of the topic pack.

During Watch Your Step and the good order element of the Construction Fit Out Campaign in October 2005 the following action was taken:

- About 80 enforcement notices were served;
- Of these, 29 notices were served in the construction sector on 'good order' (17 PNs and 12 Improvement Notices (INs)) by inspectors involved in the Fit Out campaign; and
- In addition to formal enforcement, 86 voluntary cessations of work (VCWs) were also issued during 'Fit Out'.

A breakdown of these notices shows that they addressed the following issues:

- Spillages;
- inadequate risk assessment;
- obstructions on floors;
- slippery floors;
- trip risks;
- ineffective management of risks;
- ineffective cleaning;
- poor layout / lighting;
- ineffective drainage; and
- footwear issues.

A further 27 INs and 16 PNs along with 118 VCWs were issued during the February 2006 Construction Good Order Campaign

Several enforcement case studies, including investigation reports and Notices are posted on the slips and trips pages of the HSE Intranet <http://intranet/slips/investigations.htm> and LA Extranet sites.

1.2 Sources of advice and technical support for inspectors

Staff from HSE's Slips and Trips Programme Team, supported by HSL staff will be able to assist field staff in a variety of ways, such as:

- answer queries about the likely risk posed by conditions found by inspectors at visits and advise on reasonably practicable control measures; and
- provision of support for workshops and similar educational events.

Staff in the Slips and Trips Programme Team can be located by using the advanced search facility in HSE's Who's Who directory and searching under organisational unit 'slip*'. The Programme Team can also be contacted through the 'contact us' link on the HSE web page

<http://www.hse.gov.uk/slips/index.htm>. For queries relating to this topic pack, contact John Worth in HSE's Services, Transportation and Safety Unit, telephone: 0161 952 8401 (VPN 516 8401); E-mail john.worth@hse.gsi.gov.uk.

HSL's Pedestrian Safety Unit and HSL Field Scientists are available to provide technical support including support for enforcement action. Services available from HSL include floor slipperiness measurement using the pendulum and other techniques and advice on carrying out footwear trials. Contacts at HSL are:

- Steve Thorpe - Section Head, telephone:01298 218344 or vpn 524 8344
- Marianne Loo-Morrey – Higher Scientist, telephone: 01298 218348 or vpn 524 8348.

LA inspectors should request technical support from HSL via their Enforcement Liaison Officer (ELO).

2. INSPECTION AIDE MEMOIRE – WHEN TO FOCUS ON SLIPS AND TRIPS

This aide memoire gives pointers to help inspectors recognise situations at visits in which a significant risk of sustaining injury as a result of a slip or trip could be present. To decide whether significant risk could be present by:

- looking at the work in progress and discussing other tasks e.g. goods receipt and dispatch, maintenance, cleaning etc. to identify where potential risks are/could be present;
- spotting leaking plant or machinery with fluids being allowed to accumulate on floors;
- seeing the build-up of contamination on the floor, with no visible sign of containment or clean-up, e.g. brought in on footwear in wet weather;
- noticing the use of ad-hoc measures to control leaks, such as corrugated cardboard being put down or warning signs being left in place;
- considering the age and construction of buildings, whether there is evidence of leaking roofs, walkways exposed to the elements and potential for water, mud etc. to be brought into the workroom on wet clothing and shoes or by vehicles;

- seeing cluttered walkways, build-up of waste materials, general untidiness, impeded pedestrian access, trailing cables etc.;
- talking to staff to identify “difficult jobs,” or hear about incidences of falls not leading to injury (‘near misses’);
- examining records for evidence of Slips & Trips problems — sickness absence, accident book, RIDDOR reports of over 3 day accidents.
- using Section 5 of this pack which list risks generically, then by industry and also provide control and guidance references; and
- taking into account the slips risk factor produced by use of the HSE slips assessment tool (see point 4.4).

These potentially significant risks then form the agenda for the inspection. If they are not identified then do not continue with the slips and trips inspection.

Section 9 of the inspection check lists for slips and trips, gives a comprehensive list of topics covering environmental, organisational and individual (human) factors.

3. THE SCALE OF SLIPS AND TRIPS AND HSC’S SLIPS AND TRIPS PROGRAMME

Many employers do not give slips and trips the priority they deserve. They treat them as being outside their control, inevitable or simply the employee’s fault.

Employers can, and should, create a work environment and culture where slips & trips are much less likely to happen. Often the measures needed are simple and low-cost, but they will bring about significant reductions both in human suffering and costs.

Slipping and tripping are the most common causes of major injuries within UK workplaces. Each year about 11,000 major injuries, (which amount to 36% of the total of all occupational major injury accidents), are caused by slipping and tripping. In 90% of these accidents the injuries involve broken bones and 42% of work related fracture injuries result in absences from work of between 1 - 3 months. Half of reported injuries to members of the public are slips and trips. In addition, slips and trips are often the initiators of accidents attributed to other causes, such as some machinery accidents, scaldings and probably over one third of falls from height.

3.1 HSC’s Slips and Trips Programme

The Slips and Trips Programme is part of the ‘Fit for Work, Fit for Life, Fit for Tomorrow’ strategic programme that aims to deliver a 3% reduction (from a 2004/5 baseline) in the incidence of work related fatal and major injuries by

the end of 2007/8. Also, under the 'Revitalising Health and Safety' initiative the aim is to deliver a 10% reduction in the incidence of fatal and major injuries by 2010. Because slip and trip injuries are so numerous, the overall targets will not be met unless we all work together to achieve a substantial reduction in slips and trips. Therefore the Slips and Trips Programme has a target to reduce the number of major injuries by 5.1% by 2008. It will also contribute indirectly to the target to deliver 9% in the number of working days lost.

Getting the public to take slips and trips seriously takes time and requires market penetration. This programme is designed to increase awareness, to change attitudes, to show that the risks can be managed and provide the wherewithal for improved assessment and control.

The Programme is engaging with major health and safety professional bodies and organisations including IOSH and RoSPA. A high gearing effect is obtained through key stakeholders' engagement in the Programme, eg IOSH survey of their members, collaboration with the cleaning industry and RoSPA Congress presentations and publicity. We are also involved with other professional bodies including RIBA, public administration, local authorities, employers' organisations, trade associations, trades unions, major employers and the insurance industry.

3.2 Watch Your Step Campaign 2005 / Shattered Lives Campaign 2008

A key element of the Programme's activity was a major national campaign in October 2005 'Watch Your Step' involving HSE and local authorities working in partnership to engage stakeholders to adopt and promulgate key messages on the prevention of slips and trips. The campaign incorporated a '**See it-Sort it**' call to action chosen to maximise impact. Watch Your Step consisted of a multi-media publicity campaign reinforced by promotional events run by both stakeholders and inspectors and underpinned by a programme of inspections. A comprehensive stakeholder pack was freely available to companies and organisations to enable them to run their own events. The pack included guidance, case studies, posters and PowerPoint presentations. It also included new guidance on safe cleaning of floors. Campaign guidance and promotional materials are still available on the HSE website <http://www.hse.gov.uk/watchyourstep/about.htm> .

Construction Division (CD) contributed to Watch Your Step by:

- 1 Raising the profile of site good order as an important issue with the principal construction intermediaries, including contractors and trades unions.
- 2 Producing free publicity material, including a toolbox talk for use by contractors/site workers.
- 3 Conducting a two-phased enforcement initiative in:

- October 2005 (as part of CD's Fit-out Campaign); and
- February 2006.

A further major publicity campaign – Shattered Lives – took place in 2008. This addressed slips, trips and falls from height in the food retail, food manufacturing, catering, building and plant maintenance and construction sectors.

4. MANAGEMENT OF SLIPS AND TRIPS AND RISK ASSESSMENT

4.1 Management arrangements

To achieve the injuries reduction target, attitudes and perceptions must change and duty holders and employees have to understand the causes and consequences of slip and trip accidents. Sensible measures should be taken to control and minimise risk: but personal responsibility and worker participation are essential if these measures are to be effective.

To reduce slips and trips risks, it is crucial that employers exercise management control, and inspectors should require the safety management arrangements described in Successful Health and Safety Management (HSG 65). The degree of formality of these arrangements should be proportionate to the size and nature of the undertaking. Deficiencies highlighted in the risk assessment need to be addressed through a management action plan. Management arrangements should identify precisely the causes of slips and trips accidents and then select, implement and maintain the control measures which are appropriate. Getting workforce 'buy-in' to initiatives to reduce slips and trips is crucial to their success (See section 10 - ref. 21).

Slipping and tripping are not inevitable, unless, of course, hazards are allowed to remain uncontrolled. Effective action can be taken to dramatically reduce slipping and tripping accidents. In fact there are case studies that demonstrate that these types of accidents can be virtually eliminated. Such action is not only morally right, it also makes good business sense. Occupational accidents formally classified as slips and trips cost the UK economy about £800 million each year and employers over £500 million. They cost the NHS about £115 million. Some successful organisations have long recognised that good management of slipping and tripping risks is an integral part of good overall business management.

4.2 Successful early work in the food and drink industries

To address the high level of slips and trips injuries in the food and drink industries (where slip injuries are about four times those of other industries), HSE's food and drink sector developed a successful long-term strategy to reduce such injuries through its 'Recipe for Safety' campaign. HSE published comprehensive guidance: Slips and trips - guidance for the food processing industry (HSG156). This guidance is equally applicable to other industries and it should be regarded as a definitive source of advice. Inspectors should familiarise themselves with it - there are references to it in this inspection pack. A summary of the key points in HSG 156 is given in Food information sheet 6 (See section 10 - ref. 5).

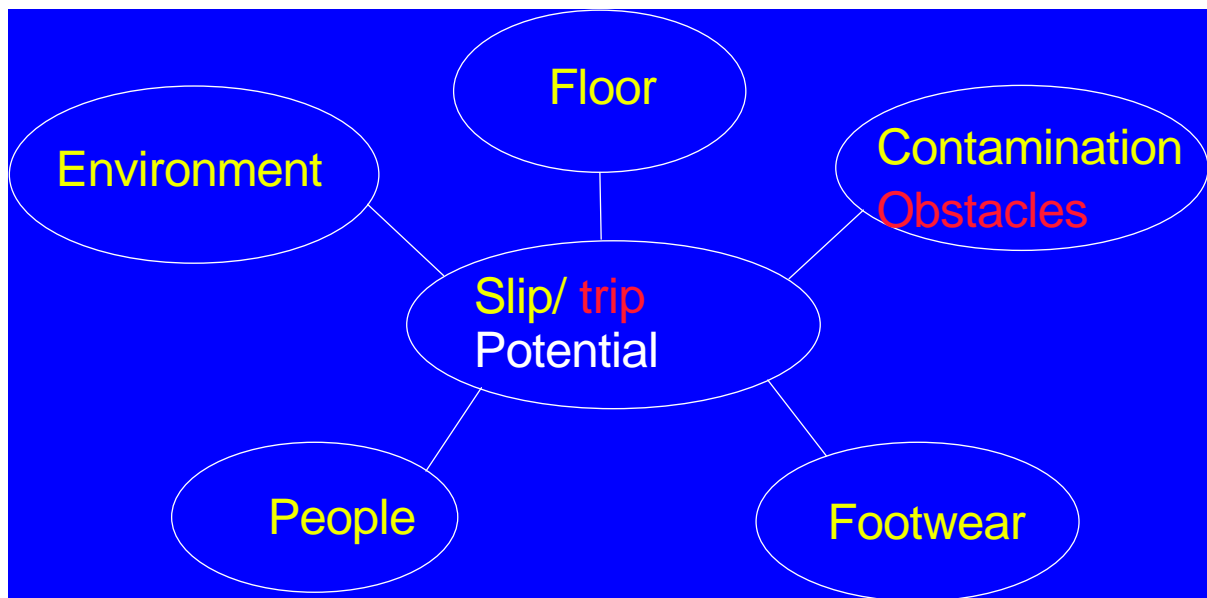


Fig. 1 Slip/trip potential model

From 1990 a concerted effort was made to reduce slips & trips accidents in food processing industries, resulting in a 16% reduction overall, with a 19% reduction in major injuries since 1996.

4.3 Assessment of slips / trips risks

In any given situation the employer has to consider a number of risk factors to determine the contribution of each one to the overall potential for someone to slip or trip. HSL has devised a slip/ trip potential model to illustrate the combination of risk factors involved – **see fig. 1**. A Slips Assessment Tool (SAT) which is based on this model has been developed by HSL to help inspectors and duty holders reach decisions on slip potential.

4.4 Use of the slips assessment tool

In some circumstances there will be little doubt in deciding whether a floor is slippery, for example where there has been a history of slips accidents or near misses in a particular location. In situations which are not so clear-cut, for ex-

ample an area of floor prone to contamination but without an accident history, it can be helpful to have a more objective measure of slip risk potential. To meet this need HSE/HSL have developed a software package known as the SAT. The tool enables an assessment of the slip risk potential of pedestrian walkways/surfaces. SAT uses surface micro-roughness readings obtained with a portable surface roughness meter to provide a scientific basis for the results obtained.

SAT is easy to use. You take a series of measurements of floor roughness at a test location using a small hand-held meter. You then collect workplace data relating to that location such as floor type, footwear and floor contaminants.

The data can then be input on-site into a laptop computer (pre-loaded with the SAT software) for an immediate assessment of slip risk. Or the data can be recorded on a proforma and transferred to a computer back at the office. The program calculates a 'slip risk factor', which indicates if there is a high or low risk of slipping in any given situation and can help to derive suitable remedial measures. The results can also inform the enforcement process, although additional data, e.g. pendulum coefficient of friction measurements, may be necessary to support enforcement action, particularly on flooring.

A good feature of the SAT is that you can change the variables you have entered to ascertain what might lower the slip risk. For example, by changing the amount of floor contamination from heavy to medium, you can see by how much this lowers the slip risk.

Availability of SAT

SAT can be freely downloaded onto a PC or laptop from the slips and trips pages of the HSE web site: <http://www.hse.gov.uk/slips/>. This means that it is now available to employers and employees; however, users will still need to have access to a suitable surface roughness meter. (Details of suppliers of surface microroughness meters are on the web site. <http://www.hsesat.info/satmeters.htm>)

HSL field scientists have also been equipped with the SAT and can carry out slip risk assessments for HSE inspectors on request. There are also a number of inspectors in each HSE division who have been issued with SAT and may also be available to carry out slips assessments. The scientists also have access to the Pendulum for routine measurements of the slipperiness of floors.

Many LA Liaison Groups also have access to SAT on a shared basis and further SAT kits may be available for loan to LAs on request via the ELO.

5. RISK CONTROL INDICATOR AND REASONABLY PRACTICABLE CONTROL MEASURES

5.1 Risk control indicator

At slips/ trips visits, inspectors will assess compliance against the risk control indicator and record findings on the IRF Other (IRF O) form. Construction inspectors use a customised risk control indicator.

Slips and trips: are work activities controlled and machinery and buildings maintained sufficiently to minimise floor contamination? Is floor drainage adequate? Are contamination control measures eg lids, trays, mats etc, being utilised? Are spillages quickly removed? Is floor cleaning suitable? Are floors/footwear adequately slip-resistant and are walkways kept clear and in good condition?

5.2 Control measures for slips/ trips

This section comprises tables of both generic and sector/industry examples of the reasonably practicable control measures that are applicable to many work activities. The **generic examples** in **Table 1a** (slips) apply to most indoor work activities and to many outdoor areas, excluding construction sites. **Table 1b** (trips) applies to both indoor and outdoor activities. The advice in tables 1a and 1b follows a hierarchy of controls which are grouped under the headings: environmental, organisational, individual, and personal protection. To tackle the risks successfully, employers are likely to need most, if not all of the measures outlined.

The first column in **Tables 1a** and **1b** identifies the various contributory factors to slip and trip risks. The second column gives the appropriate control measures. The tables are derived from HSG 156 and a description of each measure, together with practical examples is given in the text of HSG 156.

The **sector tables** cover both HSE- and LA-enforced premises. However, the tables are not mutually exclusive, as the same activities can occur in both HSE and LA enforced premises, e.g. catering. The sector-specific guidance therefore applies equally to like-for-like environments. For example, the catering tables will also be relevant to hospitals, as will the entries on storage/warehousing/transport.

Tables of reasonably practicable control measures - contents

Generic control measures

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LA sector tables

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Table 9	Recreation and leisure sites
Table 10	Retail

Table 1a - Generic control measures for preventing slips

Slips - Does the occupier have these contributory factors?	Summary of preventive measures for slip risk control
Environmental Factors	
<p>(a) Contamination of the floor, e.g. from:</p> <ul style="list-style-type: none"> • Spillages; • Water, oil and grease; • Wet cleaning methods; • Vapour; • Natural contamination such as wet and/ or mud in outside areas; • Dry powders, granules, swarf, etc; • Dry litter, e.g. polythene bags left on floors, or cardboard laid over spills; and • Deposits on shoes. 	<p>(1) Prevent contamination in the first place If this is not reasonably practicable then:</p> <p>(2) Prevent contamination becoming deposited on walking surfaces Preventing contamination from reaching the floor has been found to be most effective in practice - if not reasonably practicable then:</p> <p>(3) Limit the effects of contamination by:</p> <ul style="list-style-type: none"> • Immediate treatment of spillages; • Safe cleaning method; minimise wet floors; • Limiting the area of contamination; and • Use of warning signs and barriers. <p>If a risk remains consider block "b":</p>
<p>(b) Inherent slip resistance of the floor not maintained adequately E.g. from:</p> <ul style="list-style-type: none"> • Incorrect or inadequate cleaning or maintenance; and • Wear. 	<p>(4) Regain the original surface roughness by cleaning effectively</p> <ul style="list-style-type: none"> • Follow an effective cleaning regime; • Train, supervise and equip cleaners; and • Maintain floors and drainage. <p>If this is not enough consider block "c":</p>
<p>(c) The slip resistance of the floor is too low The factors influencing this are:</p> <ul style="list-style-type: none"> • The coefficient friction between floor and shoe; • Surface roughness of the floor; • The shape and height of ridges in the floor surface, if profiled; • The drainage capacity of the floor; • The hardness of the floor; and • Incorrect installation of the floor. 	<p>(5) Increase the surface roughness of the existing floor If this is still not enough then:</p> <p>(6) Lay a more slip resistant floor, with a sufficient surface roughness</p> <ul style="list-style-type: none"> • Draw up a specification to be met; • Select a floor with a sufficient surface roughness (floors rough enough for safety can be cleaned to hygiene requirements); • Provide effective drainage; • See installation is correct; and • Check the specification is met. <p>And also consider the factors below.</p>

Slips - Does the occupier have these contributory factors?	Summary of preventive measures for slip risk control
(d) Steps and slopes: do they cause sudden changes in step or not offer adequate foothold and/or handhold?	(7) Make sure steps and slopes give adequate foot and hand hold and have no sudden changes
e) Adverse conditions affecting use of the floor or distracting attention, e.g. <ul style="list-style-type: none"> • Low light levels; • Shadows; • Glare; • Excess noise; • Extreme temperature; • Excess dust; and • Bulky/awkward personal protective equipment (PPE). 	(8) Make sure the prevailing conditions allow good visibility of, and concentration on, floor conditions
Personal protective equipment	
(f) Shoes offer insufficient slip resistance in combination with the floor surfaces, e.g. <ul style="list-style-type: none"> • Type of shoe; • Fit; • Sole material; • Contamination of shoes; • Sole pattern; • Maintenance /renewal; and • Wear. 	(9) Select suitable shoes for the floor, the environment and the individual
Organisational Factors	
(g) the nature of the task, e.g. <ul style="list-style-type: none"> • The need to carry, lift, push, lower or pull loads; • The need to turn, to move quickly or take long strides; • Distractions; and • Having no hands free to hold on/break a fall. 	(10) Analyse tasks to see they do not compromise the ability to walk safely in any remaining slip risk area

Slips - Does the occupier have these contributory factors?	Summary of preventive measures for slip risk control
(h) Consider vulnerable individuals, e.g. <ul style="list-style-type: none"> •Poor knowledge of risks and measures; •Poor health and agility; •Poor eyesight; and •Fatigue. 	(11) Only allocate tasks in slip risk areas to those competent to follow slip precautions
(i) Insufficient supervision	(12) Supervise to monitor physical controls and to make sure safe practices are followed
(j) Safety culture which is not supportive	(13) Establish a positive attitude that slip risks can be controlled <ul style="list-style-type: none"> •Involve the workforce in initiatives
Individual Factors	
(k) Unsafe actions of people, e.g. from lack of: <ul style="list-style-type: none"> •Awareness of risk; •Knowledge of how slips occur; •Information and training; and •Attention and care. 	(14) Train, inform and supervise employees And; (15) Set procedures for visitors. Both for your site and for your employees visiting elsewhere.

Note 1: Potential purchasers of floors need to exercise care in **interpreting manufacturers' test data** on the slipperiness properties of floors. There are two practical measures of slip resistance: surface roughness of the flooring material and the coefficient of friction (CoF) between shoe and floor. Some CoF test methods can give misleading results. HSE favours pendulum-type tests which are designed to imitate the pedestrian/ heel impact, for site-based testing, and the DIN ramp test for laboratory-based testing. These methods give realistic CoF readings in wet and dry conditions. On the other hand, sled-type CoF tests, such as the Tortus, have been discredited by HSE as they can give misleading results in the wet.

To check that the original specification has been met, a newly installed floor should be checked immediately after installation and then at intervals thereafter. References 4, 6, 22, 23 and 24 in Section 10 contain guidance for duty holders on procuring a new floor.

See 'Assessing the slip resistance of flooring – a technical information sheet' – slips and trips 1 (rev1) - on the HSE web site at <http://www.hse.gov.uk/pubns/web/slips01.pdf>.

Table 1b - Generic control measures for preventing trips

Trips - Does the occupier have these contributory factors?	Summary of preventive measures for trip risk control
Environmental factors	
<p>(l) Uneven surfaces E.g. gullies, holes, changes in level.</p> <p>(m) Obstructions E.g. accumulation of items such as from work in progress or waste.</p> <p>(n) Adverse environment E.g. inadequate illumination to see floor properly, or glare.</p>	<p>(16) Eliminate holes, slopes or uneven surfaces which could cause trips risks</p> <p>(17) Good housekeeping</p> <ul style="list-style-type: none"> •Eliminate materials likely to obstruct and cause trips; •Mark fixed obstacles with, e.g. black and yellow stripes. <p>If this is not reasonably practicable:</p> <ul style="list-style-type: none"> •Prevent material obstructing. <p>(18) Provide suitable lighting so that obstructions can be seen and:</p>
Organisational factors	
<p>(o) The nature of the task E.g. creates obstructions</p> <p>(p) Safety culture which is not supportive</p>	<p>(19) Analyse the tasks and process flows to see if the work can be handled so as to minimise or eliminate obstructions.</p> <p>(20) Establish a positive attitude that trips can be prevented</p> <ul style="list-style-type: none"> •Involve the workforce in initiatives
Individual Factors	
(q) Safe practices not followed	(21) Train, inform and supervise employees

**Table 2 Construction
Slips / trips target areas and reasonably practicable control measures**

Industry/ operation	Hazard	Examples of reasonably practicable control measures	Sector-specific guidance
Site layout	Untidy site	Plan proper access ways for pedestrians and keep them free from clutter. Segregate vehicles from pedestrians.	Watch Your Step Good Order Campaign materials http://www.hse.gov.uk/construction/slips/index.htm
Groundworks	Loose material and spoil stacked at the edge of an excavation	Stack materials and spoil well away from the excavation or provide adequate barriers around the excavation to prevent materials or people falling into the excavation.	HSG 150 HSG 185
Internal fit out works	Temporary services (cables, hoses, etc) causing obstructed walkways	Provide supports and fittings to suspend services off the floor and arrange walkways away from working areas. Eliminate materials likely to cause an obstruction. Provide suitable lighting.	HSG 150
Work on general access scaffolding	Loose materials stacked on general access routes	Keep platforms clean and tidy.	None
	Openings and traps through which peoples' feet can pass	Ensure there are no openings or holes in the work platform.	HSG 150
Street works	Loose material stored on the footpath or highway	Store materials out of the path of pedestrians and road users. Fence excavations in the footpath or road.	HSG 150

**Table 3 - Commercial and consumer services and transport
Slips / trips target areas and reasonably practicable control measures**

Industry/ operation	Hazard	Examples of reasonably practicable control measures	Sector-specific guidance
Post and courier activities Delivery operations	Wet and slippery surfaces, frost/ice, uneven ground conditions, poor lighting. Tripping over retaining walls, curbs and paths etc.	Risk assess known routes, identify and record known hazards and inform operatives of findings. Ensure Walk Risk Assessments are adequate (Royal Mail). Staff should not walk whilst reading, should avoid short cuts, stick to footpaths and be alert to uneven surfaces, poorly lit stairways etc. Severe Weather Policy implementation (Royal Mail). Suitable footwear for the weather conditions, the environment and the individual. Recommendations from accident investigations carried through.	None specific Check enforcement allocation: SIM 05/2004/51 Allocation of Premises Operated by Royal Mail Group SIM 05/2004/52 Parcel Carriers Enforcement Allocation
Post and courier activities Sorting and transfer operations	Poor housekeeping, obstructions, workplace design.	Regular housekeeping regime implemented. Prevent waste build up, e.g. provision of suitably positioned waste containers where required. Promote safety culture and workforce participation.	As above
Freight by road	Loading and unloading vehicles	Suitable footwear for the weather conditions, the environment and the individual.	Falls from vehicles information sheets http://www.hse.gov.uk/fallsfromvehicles/infosheets.htm

Industry/ operation	Hazard	Examples of reasonably practicable control measures	Sector-specific guidance
Storage and warehousing	<p>Pedestrian walkways not clearly defined or not kept free of obstructions such as jutting-out pallets or waste/ packaging materials. Ingress of water from vehicles and footwear in wet weather.</p> <p>Poor lighting</p>	<p>Pedestrian areas prone to ingress of water should have a suitably slip-resistant surface. Waste receptacles conveniently positioned. Suitable footwear for the weather conditions, the environment and the individual.</p> <p>Provide and maintain good lighting.</p>	Warehousing and Storage HSG76
Industrial cleaning	<p>Slipping on wet floors during or after cleaning Tripping over obstacles in untidy or badly-organised workplaces</p>	<p>Organise work to avoid the need to walk on wet floors. Contract cleaners to report untidy workplaces to the host employer. Slip-resistant footwear</p>	<p>Slips and trips: the importance of floor cleaning S&T2: http://www.hse.gov.uk/pubns/web/slips02.pdf</p>

**Table 4 - Food processing industries
Slips / trips target areas and reasonably practicable control measures**

Activity	Hazard	Examples of reasonably practicable control measures	Sector specific guidance
Food processing including packing and storage	Wet floors, icy floors and floors contaminated with food waste and spillage	<p>Prevent water and contamination reaching walking areas by eliminating wet leakage and spillages.</p> <p>Set up an effective cleaning regime and treat spillages and contamination quickly and regularly.</p> <p>Prevent ice formation and build-up in freezer walking areas.</p> <p>Provide floors with an adequate degree of roughness to ensure good slip resistance and supply footwear which matches the flooring to provide the best combination of slip resistance.</p> <p>Ensure that lighting is both adequate and avoids glare and shadows.</p>	<p>HSG 156 Slips and Trips - guidance for the food processing industry</p> <p>Food Sheet 6 Slips and Trips: Summary Guidance for the Food Industry</p> <p>Recipe for Safety</p>

**Table 5 - Engineering industries
Slips / trips target areas and reasonably practicable control measures**

Industry	Hazards	Examples of reasonably practicable control measures	Sector-specific guidance
Motor vehicle repair (MVR)	Oil on floor and wet surfaces	Immediate treatment of spillages. Effective cleaning of floors. Good drainage in wet processes, particularly vehicle washing area, suitable footwear or working platforms when necessary.	Health and safety in motor vehicle repair HSG 167
	Vehicle ramps	Ramps dry with non-skid surfaces	
	Trailing electric cables and loose materials	Re-route cables away from traffic routes, use of cable covers. Good housekeeping	
Treating / coating, e.g. (electroplating)	Spillage, especially around the treatment tanks	Provide spillage containment, good drainage, duck boards or matting, slip resistant footwear etc.	
Outdoor engineering activities	Oil and grease contamination and frost in wintertime	Use temporary non-slip coverings on passageways. Drip trays etc. to contain spillages/leaks. Maintain valves to prevent leaks. Ensure suitable supply of grit/salt and make arrangements for work areas to be cleared in advance - use detergent and pressure washers if necessary.	
	Temporary services (hoses, cables etc.), obstructed walkways and accumulation of rubbish/scrap	Plan distribution of cables to minimise their length and to keep hatches and doorways clear. Provide supports and fittings (i.e. S hooks) to suspend services above decks. Remove services when no longer required.	Shipbuilders and Shiprepairers Association (SSA) Guidance Note 10 Volume 1, OC 730/16 refers Also SSA guidance - Preventing slips, trips and falls on the level in shipbuilding and ship repair yards
General mechanical engineering and metal fabrication.	Airlines, cables, plinths or bases to machines, other fixed or protruding objects, damaged floors, potholes, and inadequately covered drains/manholes	Clear storage and gangway demarcation. Route cables away from walkways (if needed move supply), use cable covers. Good housekeeping. Mark fixed obstacles, e.g. with black and yellow stripes. Preventative maintenance for flooring and drain/manhole covers. Regime for reporting faults and repair.	HSG 246 Safety in the storage and handling of steel and other metal stock

Industry	Hazards	Examples of reasonably practicable control measures	Sector-specific guidance
Includes steel stockholders	Leakages / spillages of water, oil, grease and coolant. Pieces of metal, work materials, swarf, empty pallets and polythene sheeting	Preventative maintenance to prevent leaks from machinery. Correct volumes/pressures of metalworking fluids to prevent mists and splashing. Fit splashguards on manual turning machines and correctly utilise machine enclosures on automatic machines. Contain spillage egg drip trays and swarf trays, ensure they are regularly emptied. Provide duck boards or metal grids where necessary.	

**Table 6 - Manufacturing - rubber and plastics, paper, printing, textiles and woodworking
Slips / trips target areas and reasonably practicable control measures**

Industry/ operation	Hazard	Examples of reasonably practicable control measures	Sector-specific guidance
Plastics extrusion and expanded polystyrene production	Spilt plastic granules, bead, lubricants (e.g. talc)	Automation of feed systems for raw materials Immediate cleaning-up of spillages. Use the right cleaning regime to maintain the properties of the flooring.	
Plastic/rubber moulding machines	Oil leaks	Maintenance of machinery	RUBIAC risk assessment check list in 'RUBIAC Recommended Practice for Risk Assessment'
Paper making	Poor access	Provision of walkways and safe means of access	Guide to managing health and safety in paper mills, part 6, Making paper safely
Paper making/ waste paper	Poor housekeeping, wet floors, spillage, paper broke/piles of wet paper	Immediate cleaning-up of spillages/ waste materials. Use the right cleaning regime to maintain the properties of the flooring.	The Paper Federation of GB and the GPMU ran a campaign in April 2002 - 'Going Bananas'
Printing and publishing	High proportion of tripping accidents	Main hazards and controls set out on HSE's printing web site (www.hse.gov.uk/printing/slips)	(slips and trips module). See
Textiles: dyeing and finishing	Spillages of liquor from containers and vessels	Automated systems, lidded buckets, drip trays	
Woodworking	Poor housekeeping in machining areas	Good control of wood waste Preventing obstructions and tripping hazards Maintenance of floors	Slips and trips account for about 12% of reported accidents (mainly trips) in woodworking WIS 15 refers

**Table 7 - Public Services – health services - hospitals, care homes and peripatetic work; education
Slips / trips target areas and reasonably practicable control measures**

Industry/ operation	Hazard	Examples of reasonably practicable control measures	Sector-specific guidance
Health Services (general) and education	Slippery surfaces from cleaning duties	Clean by dry methods wherever possible. Exclude people from wet cleaning areas. Clean during quiet hours. Use the right cleaning regime for the type of flooring. In pedestrian areas which cannot be kept dry, install slip-resistant flooring.	Health Services information sheet no.2 Education information sheet no. 2 Web link to the health services campaign page/e-publicity pack: http://www.hse.gov.uk/slips/campaign.htm NHS Health Technical Memorandum on flooring HTM61
	Falling over obstructions	Eliminate materials likely to obstruct and cause trips. Maintain floors in good condition. Mark ramps and changes in level, e.g. with black and yellow stripes.	
	Steps, paths and parking areas	Maintain surfaces in good condition. Clean leaves, mud etc. from surfaces. Discourage short cuts across grassed/ muddy areas.	
	Kitchens and food serving areas - contamination of floors with food, water and litter.		
Schools	Uneven surfaces in playgrounds Highly-polished sports halls	Maintain outdoor surfaces. Avoid over-polishing in sports halls. Keep smooth floors clean and completely free of wet or dusty contamination.	See Education information sheet no. 2
Residential and non-residential care	As above for health services	The use of strategically placed handrails offers the service user security, especially where there are changes of floor levels	Health and safety in care homes – HSE publication
Peripatetic workers, e.g. health visitors, social workers	Wrinkled carpets, stair carpets not securely fixed. Slippery floors. Uneven or damaged steps or stairs. Poor lighting	Look out for hazards at all times- report back to supervisor anything which presents a risk to someone else's health and safety	The Home Care Workers handbook – UKHCA publication

**Table 8 - Catering: hotels, restaurants, fast food and take-aways
Slips / trips target areas and reasonably practicable control measures**

Activity/location	Hazard	Examples of reasonably practicable control measures	Sector-specific guidance
Kitchen work and food preparation	Wet floors and floors contaminated with food debris, grease or oils Damaged or uneven floor surfaces Obstructions on floors Trailing leads	Clean up spills immediately, clean-to-dry policy (applies to all activity areas). Maintain equipment to prevent leaks of oil or water and avoid floor contamination. Proper drainage. Provide flooring with appropriate surface roughness and associated cleaning regimes. Slip-resistant footwear (may also apply to other activity areas). Good housekeeping and obstruction-free work areas (applies to all activity areas). Procedures training.	Catering information sheet 6, (revised) Preventing slips and trips in kitchens and food service Catering information sheet 12, Maintenance priorities in catering Stop Slips in Kitchens information pack http://www.hse.gov.uk/slips/kitchens/index.htm
Restaurant /food service	Spillages of food and drink. Slippery floor surfaces. Damaged or uneven floor surfaces. Obstructions on floors .	Maintenance of floors, tiles, carpets. Appropriate floor surfaces on customer side of counter areas.	HSG 156, Slips and trips: guidance for the food industry Workplace Health Safety and Welfare Regulations and ACOP1992 - not sector-specific but useful
Food stores including cold store areas	Ice, liquids, condensation. Obstructions	Housekeeping/shelves not over-stacked. Well-lit areas free from obstructions. Catch condensate from chiller units.	
Stairs, steps and corridors	Walkways in bad condition Poor lighting Obstructions	Highlighted slopes. Appropriate surfaces. Provision of handrails . Stairs: square, highlighted nosings and consistent risers; abrasive nosings where necessary. Adequate lighting – no dark areas or glare.	

Activity/location	Hazard	Examples of reasonably practicable control measures	Sector-specific guidance
Entrance lobby	Rain wind-blown or carried in on clothing, umbrellas, footwear	Well-designed and maintained entrance matting. Effective weather canopies	
Car park and other outdoor areas e.g. for deliveries, waste disposal	Pot holes, uneven surfaces Ground contaminants Ice, snow Obstructions	Weather canopies. Well-lit areas. Sufficient space to accept and work with goods delivery. Maintenance of ground surfaces. Suitable footwear for staff working mainly outdoors.	
Bathroom/toilets	Liquids (splashes, leaks, cleaning) Spillages/litter	Appropriate flooring and associated cleaning regime for likely contamination. Regular inspections with prompt action to clean up spillages/ waste.	

**Table 9 - Recreation and leisure sites
Slips / trips target areas and preventative measures**

Activity	Hazard	Preventive measures	Sector-specific guidance
Unavoidably wet areas - changing rooms, showers, pool areas etc.	Wet conditions	Slip-resistant surfaces. Provide drainage mats/ grids in shower areas. Thorough cleaning regime to maintain surface properties.	HSG 179, Managing health and safety in swimming pools
Floor mopping/ wet cleaning	Floors left with a film of moisture	Amend cleaning methods to leave a dry floor finish. Cleaning 'out of hours'.	Education information sheet 2 is relevant and gives further control measures.
Walkways and thoroughfares	Changes in floor level	Highlight changes in level with use of colours or hazard warning tape. Eliminate small changes in floor levels.	
Outdoor pedestrian traffic	Condition of ground Contaminants Ice Obstructions	Pathways laid out to avoid incentives to 'short-cut'.	
Public entering the premises	Rain wind-blown or carried in on clothing and footwear.	Well-designed entrance matting. Weather canopies.	
Drinks service	Spillages	Immediate treatment of spillages. Consider all areas where drinks spillage may occur - such as dance floors.	

Table 10 - Retail Sector
Slips / trips target areas and reasonably practicable control measures

Activity/location	Hazard	Examples of reasonably practicable control measures	Sector-specific guidance
Public entering the premises	Rain wind-blown or carried in on clothing, footwear, umbrellas and shopping trolleys	Suitable floor surface Well-designed and maintained entrance matting Effective weather canopies Trolleys kept under cover Provide umbrella stands at entrances Effective cleaning and monitoring scheme	No specific guidance but guidance listed below is appropriate in certain areas
Stairs	Condition of stairs Poor lighting Obstructions Surface contamination	Handrails Appropriate surface Square, highlighted nosings Consistent risers Adequate lighting Do not store items on stairs Cleaning, monitoring and maintenance scheme	HSG 156 Slips and trips: guidance for the food processing industry ACOP Workplace (Health Safety and Welfare) Regulations - not sector-specific but useful Catering information sheet 6 (revised) Preventing slips and trips in kitchens and food service
General sales area/shop and malls	Spillages of food/drink Loose plastic bags Leaks from refrigeration units Shelf-filling produce blocking aisles Obstruction on shop floor i.e. stock, displays Damaged flooring	Efficient spillage procedure (notification, action and spill kits) leaving smooth floors dry after cleaning Maintenance of machinery Maintenance scheme for shop area. Monitoring scheme Keep passageways clear	Catering information sheet 12 Maintenance priorities in catering
Fresh produce	Food on floor	Packaging loose produce Efficient matting Proximity/availability of plastic bags Cleaning and monitoring scheme	Stop Slips in Kitchens information pack http://www.hse.gov.uk/slips/kitchens/index.htm

Activity/location	Hazard	Examples of reasonably practicable control measures	Sector-specific guidance
In-store cleaning	Smooth floors left wet after cleaning Trailing cables from machinery	Cleaning regime with dry finish dependant on surface Cordon-off areas being cleaned Deep cleaning outside opening hours Training and awareness of cleaners Effective footwear for staff Monitoring procedures	
Cold storage /warehousing/stockroom	Ice, liquids Obstructions Damaged floors Unsuitable footwear	Housekeeping Prevent ice build-up by ensuring efficient operation of refrigeration equipment. Well-maintained doors to ensure effective seals Clearly-marked gangways Rougher floors Damage reporting and repair system Cleaning and monitoring procedures Effective footwear	
Deliveries, waste disposal and outside activities including car parks	Condition of floor Contaminants, ice Obstructions	Weather canopies Maintenance of floor surface Rougher floors Consider programme of gritting. Effective footwear for staff	
Toilet facilities and public servery areas (deli counter etc.)	Liquids (splashes, leaks, cleaning) Spillages/litter	Suitable flooring Efficient spillage procedure (notification, action and spill kits) leaving floors dry after cleaning Consider the use of lids on drinks. Cleaning and monitoring scheme Housekeeping	

Activity/location	Hazard	Examples of reasonably practicable control measures	Sector-specific guidance
Food preparation areas -behind the counter (staff side)	Floor contamination Unsatisfactory floor slip resistance Condition of floor Obstructions Unsuitable footwear	Avoid wet ingredients, products and cleaning methods. Provide drip trays to contain spillages. Maintain floors, proactive monitoring. Spot cleaning of spillages Effective cleaning regimes Space to keep working stock and equipment Good housekeeping Provide slip-resistant flooring and footwear.	

6. LEGAL REQUIREMENTS

6.1 General

Employers and employees have general duties under the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety at Work Regulations 1999. Appendix 1 of 'Slips and trips – guidance for the food processing industry' (HSG 156) gives a comprehensive summary of the legal requirements.

6.2 Specific legal requirements

There are specific requirements in regulations, particularly the Workplace (Health, Safety and Welfare) Regs. 1992 (WPR), which relate to the control of slips and trips risks. A summary of these with reference to available template improvement notices is given in Table 11:

Table 11 - Summary of legal requirements on slips and trips

Issue	Legal requirement	Template notice no. (see table 14)	Further information/ advice
Risk management	General requirement to manage health and safety risks, as applied to slips and trips	9	
Risk assessment	General requirement for a suitable and sufficient risk assessment of health and safety risks, as applied to slips and trips	1	
Design of floors	The CDM 2007 Regulations include responsibilities for designers to consider end-user health and safety and compliance with the Workplace Regulations		ACOP Managing Health and Safety in Construction
Floors should not be slippery	With respect to its construction, the floor shall be suitable for its intended use and shall not be slippery so as to expose any person to a risk to their safety. (Reg. 12(2) WPR).	8	Absolute requirement
Condition of floor surface	The floor shall have no holes, or slope, or be uneven so as to expose a person to a risk to their safety. (Reg. 12(2) WPR).	6	Absolute requirement
Maintenance of floors	The workplace.....shall be maintained.....in good repair (Reg. 5 WPR)		
Drainage	The floor shall have effective means of drainage where necessary (Reg. 12(2)(b) WPR).	3	

Issue	Legal requirement	Template notice no. (see table 14)	Further information/ advice
Prevent contamination	So far as is reasonably practicable, the floor shall be kept free from any substance which may cause a person to slip (Reg. 12(3) WPR). Regs. 5 and 12 of the Provision and Use of Work Equipment Regulations 1998 (PUWER) – work equipment to be suitable (substances not falling from equipment or being ejected) and to be maintained in good repair	2, 4, 11	Paragraph 94 of the Approved Code of Practice WPR indicates that where leaks are from processes or plant, control should be by plant enclosure where possible.
Cleaning floors	Reg. 9(3) WPR requires the floor should be kept sufficiently clean, and Reg.12(3) WPR as above	2, 10	Paragraph 95 of the Approved Code of Practice WPR indicates where spillage does occur immediate steps to treat it should be taken.
Outdoor working	Every workstation outdoors should be arranged to ensure that any person is not likely to slip (Reg. 11 WPR).		
Stairs	For stairs 'suitable and sufficient handrails and if appropriate, guard rails shall be provided' (Reg. 12(5) WPR).		
Obstructed walkways	So far as is reasonably practicable every floor shall be kept free of obstructions and from any article..... which may cause a person to.... trip (Reg. 12(3) WPR).	7	
Accumulated waste	Waste materials shall not be allowed to accumulate in a workplace, so far as is reasonably practicable, except in suitable receptacles (Reg. 9 WPR).		
Footwear	Regs. 4(1) and 6(1) PPE at Work Regs. Suitable footwear to be provided	5	

7. ENFORCEMENT

7.1 Immediate action

Issue of a **Prohibition Notice** will generally be appropriate where there are added consequences of falling, for example: workforce carrying hazardous materials (e.g. chemicals, very hot liquids). In other cases the need for immediate action will usually be less and the appropriate action can be guided by the main body of the EMM.

Immediate action should also be taken where the actual risk of slipping/tripping is high so that the risk of serious personal injury becomes **Possible** – examples would include:

- ice build-up on steps with no grit used or clearing being done;
- smooth glazed ceramic tiles or polished stone/terrazzo floors that are wet/contaminated and heavily used with evidence of people slipping (e.g. at building entrance or on a swimming pool surround); and
- smooth vinyl floors used by elderly/ frail persons, where the floors are likely to become wet.

Here the action would range from getting management to clean up the area immediately – to closure of the route until temporary measures are taken (e.g. non-slip matting placed over slippery surface). The closure of a site until a floor is replaced is very unlikely to be an appropriate matter for a PN as other temporary solutions can control the risk, until more permanent measures are taken.

7.2 Establishing the initial enforcement expectation (IEE)

Risk Gap

EMM Table 2.1 (single and low casualties) will normally apply. In nearly all cases the **Benchmark** will be Nil or Negligible – do not let the fact that people may fall for reasons not connected with the floor/housekeeping (e.g. fall over their own feet, illness) suggest other points on the benchmark range, i.e. if spillages and tripping hazards are properly controlled and floors have appropriate slip resistance, the risk of falling should not be higher than in the normal environment.

The Measure of Actual Risk should be based on the likelihood of actually slipping/tripping coupled with the consequence, e.g. sustaining a broken wrist/arm etc. The risk of incurring a RIDDOR-defined major injury on falling will be credible in many workplace environments, i.e. the consequence would be a serious personal injury.

A Box 4 marking on the intervention report form (IRF) for any of the three slips and trips risk control indicators indicates that the actual risk of serious personal injury is likely to be Remote or Possible depending on the chance of a fall occurring – Probable risk of serious injury is unlikely unless there are

added consequences of a person falling (e.g. carrying dangerous chemicals). This suggests inspectors should get either an Extreme or Substantial Risk Gap in these situations. Table 12 summarises this argument. Annex 2 of the intervention protocol contains the IRF guide.

Table 12 - Determining the risk gap for slips and trips

Slips and trips risk control indicator rating	Benchmark	Actual risk	Risk gap
Box 4	Nil/ negligible	Probable risk of serious personal injury in exceptional cases	Extreme
		Possible risk of serious personal injury on falling	Extreme
		Remote risk of serious personal injury on falling	Substantial

Exposure to significant slip / trip hazards – derivation of the risk gap

Table 13 considers some significant slip/ trip hazards and in each case provides advice on establishing the risk gap and references to applicable template notices. The hazards are:

- a) floor contamination in buildings;
- b) obstructions and uneven or damaged floors;
- c) slippery flooring; and
- d) unsuitable footwear.

In table 13 'main risk factors' details the factors which would be expected to result in a substantial or extreme risk gap. When considering frequency and period of non-compliance the Inspector will use their judgement based on the conditions found at the premises.

The benchmark (where the duty holder should be) should be taken as a nil/neg risk of serious personal injury. This will be an even, uncontaminated floor, suitably constructed, without obstructions, or where footwear is an effective control. If any **one** of the four hazards considered here is not effectively dealt with, i.e. the relevant risk factors are present, then the duty holder moves away from the nil/neg likelihood towards remote/possible and action should be taken. If the risk factors are present for more than one of the hazards then this should be taken into account when deciding the level of intervention required.

Table 13 - Establishing the risk gap for significant slip and trips hazards

Hazard	Key regulations	Main risk factors leading to a risk gap of substantial or extreme	Template Notices
<p>Floor inside building wet or contaminated with substances: becomes slippery</p>	<p>Reg. 12(3) WPR WPR ACOP paras 94, 95, 96 MHSW Regs. 3 and 5</p>	<p>(i) Significant contamination of floor surface frequently occurs e.g. from a production line or process, water from rain wet footwear; and (ii) Contamination occurs in an area which is frequented by people; and (iii) Procedures are non-existent/ineffective at controlling contamination e.g. measures not taken to prevent contamination reaching the floor, sufficient matting not provided at an entranceway, pedestrians not prevented from walking on floors wet from cleaning process, or spillages allowed to accumulate on walking surfaces; and (iv) Suitable slip-resistant footwear is not worn by pedestrians.</p>	<p>2. Effective cleaning regime 4. Absorption of spillages 9. Management of slips 10. Safe cleaning of floors 11. Restricting spillages</p>

Hazard	Key regulations	Main risk factors leading to a risk gap of substantial or extreme	Template Notices
Obstructions and uneven floors	<p>Regs. 9(3), 12(2)(a) and 12(3) WPR</p> <p>ACOP paras 90, 91, 97</p>	<p>(i) Poor housekeeping – the obstruction frequently reoccurs e.g. is part of a weekly delivery or obstructions, e.g. trailing cables, are commonplace within the workplace; or</p> <p>(ii) Uneven or damaged floor surface, where the floor has been in that condition for a prolonged period; and</p> <p>(iii) The floor surface/ obstruction is in a frequently used area; and</p> <p>(iv) Procedures are non-existent/ ineffective at controlling trip hazards e.g. no maintenance regime/ lack of temporary measures until the area can be made good.</p>	<p>6. Suitable floor condition</p> <p>7. Floor free from obstructions</p>
Slippery flooring	<p>Regs. 12(1),12(2) WPR</p> <p>ACOP para 93, 98</p>	<p>(i) Flooring has insufficient friction and measures for controlling contamination or the provision of slip-resistant footwear are not reasonably practicable or are ineffective e.g. on a care of the elderly hospital ward, around a swimming pool, on outdoor public access routes.</p>	<p>3. Effective drainage</p> <p>8. Suitable flooring surface</p>
Unsuitable footwear	<p>PPE at Work Regs. 4(1) and 6(1) WPR ACOP guidance para 103</p>	<p>(i) Floor is frequently contaminated; and</p> <p>(ii) A significant slip risk remains once other control measures have been implemented.</p>	<p>5. Provision of slip-resistant footwear</p>

Standards

Regs. 12(1) and 12 (2) of The Workplace (Health, Safety and Welfare) Regulations 1992 require that floors and access routes are in good condition and not slippery. Care needs to be taken in not taking this to extremes, but because this is a **Defined** standard any floor clearly and significantly defective (i.e. large holes, loose and rocking paving slab, extremely slippery, e.g. ice, oil/food on steel or smooth tiles) or which has cables across walkways, should be considered as contravening a **Defined** standard in the EMM initial enforcement expectation (IEE). Where the risk gap is extreme or substantial (or moderate) and the standard is defined, this leads to an **IEE of an Improvement Notice** (EMM table 5.1).

The standards for the prevention of obstructions and substances on floors (reg. 12(3) refers) are described in HSE guidance, e.g. HSG 156 and cleaning information sheet, S and T 2. Such guidance and the majority of the sector guidance referred to in the tables in this guide is **Established**.

The details of actual levels of surface roughness, coefficients of friction for floors and outputs from the slips assessment tool should be considered as **Interpretative** when deciding the IEE.

7.3 Outputs – factors varying the initial enforcement expectation (IEE)

No guidance is given here on factors which may vary the initial enforcement expectation – duty holder factors and strategic factors. The normal EMM considerations and evidential factors should be used in deciding what output is appropriate.

8. TEMPLATE IMPROVEMENT NOTICES

Table 14 lists all the template notices provided in the slips and trips topic inspection pack together with an additional one (no. 10) which addresses slip risks to employees following floor cleaning operations.

Issues covered by the template notices

- 1 Assessment of slips and trips risks;
- 2 Effective cleaning regime to ensure floor free from substances which may cause a person to slip;
- 3 Effective drainage of floor;
- 4 Floor: prevent spilt substances from causing slips;
- 5 Provision of slip-resistant footwear to employees;
- 6 Trips: floor condition to be suitable;
- 7 Trips: floor free from obstructions;
- 8 Slips: suitable flooring surface;
- 9 Management of slips and trips risks;
- 10 Floor cleaning regime to prevent slips; and
11. Floor: prevent [food] spillages from machinery from contaminating floor

Table 14 - Template For Improvement Notices

1. Assessment of Slip/trip risks	The reasons for the said opinion	Schedule
<p>Regulations 3(1) and 3(6) of Management of Health and Safety at Work Regulations 1999 Section 2(1) of the Health and Safety at Work etc. Act 1974</p>	<p>That a suitable and sufficient assessment of the health and safety risks to your employees who are at risk of injury from slipping and falling on floors in the [area] has not been completed.</p>	<p>Compliance with this Notice may be achieved by:</p> <p>Either: A suitable and sufficient assessment of the risk of slipping for the [area] should be made. This should identify:</p> <ul style="list-style-type: none"> • The groups of employees at particular risk from slips; • The locations where slips and trips could occur; • The extent of the risks involved; • The causative factors involved; and • Whether any existing preventative measures adequately control the risks and whether further precautions are necessary (if so, specify them). <p>The assessment should consider the following matters, if applicable:</p> <p>Design, operation and maintenance of equipment to prevent or control spillage/ leakage, design and condition of floors, safe systems of work, house-keeping and cleaning regimes, use of slip-resistant footwear and information and training needs for existing employees and for new employees during induction.</p> <p>The significant findings of the assessment should be recorded.</p> <p>Or: any other equally effective means</p>

2. Effective cleaning regime to ensure floor free from substances which may cause a person to slip	The reasons for the said opinion	Schedule
<p>The Workplace (Health Safety and Welfare) Regulations 1992 Regulation 12(3) Section 2(1) and 2(2)(b) of the Health and Safety at Work etc. Act 1974</p>	<p>You have failed to ensure so far as is reasonable practicable that the floor of the [department] is kept free from substances, [e.g. flour and oil], that might cause a person to slip and fall.</p>	<p>Compliance with this Notice may be achieved by either:</p> <ul style="list-style-type: none"> • Adequately clean the floor of the [department] so as to remove substances, namely [flour and oil], which might cause a person to slip and fall. <p>AND</p> <p>2. Devise and implement a procedure to ensure that spillages on to the floor of the [department] [such as flour and oil], which are likely to cause persons to slip are minimised and are detected promptly and cleaned-up effectively.</p> <p>Or: any other equally effective means.</p>
3. Effective drainage	The reasons for the said opinion	Schedule
<p>The Workplace (Health Safety and Welfare) Regulations 1992 Regulations 12(1) and 12(2) Section 2(1) of the Health and Safety at Work etc. Act 1974</p>	<p>You have failed to ensure that the floor of the [XXX department] is provided with any effective means of drainage to remove [water] which collects there, and which may cause persons to slip and fall.</p>	<p>No Schedule given Remedial measures could include the provision of duckboards, mats or grids, use of ribbed or profiled surfaces or the installation of slightly sloping floors provided with suitably-protected drains or channels. See para 98 of the Approved Code of Practice for the Workplace (Health, Safety and Welfare) Regulations 1992</p>

4. Floor: Prevent spilt substances from causing slips	The reasons for the said opinion	Schedule
Regulation 12(3) of the Workplace (Health, Safety and Welfare) Regulations 1992 Section 2(1) (and 3(1) if applicable) of the Health and Safety at Work etc. Act 1974	[Water released from wet footwear and clothing] is accumulating on the [polished wooden] floor surfaces [of the foyer] to which staff [and visitors] have access and are at risk of slipping, falling and sustaining injury.	<p>Compliance with this Notice may be achieved by:</p> <p>Either: Provide suitably-sized entrance matting to collect the water so that the surrounding floor surfaces remain dry. Implement a system to monitor and replace mats to ensure that they do not become saturated and act as a source of wet contamination for surrounding dry areas. Ensure that mats do not present a trip hazard.</p> <p>Or: any other equally effective means</p>
5. Provision of slip-resistant footwear	The reasons for the said opinion	Schedule
Regulations 4(1) and 6(1) of the Personal Protective Equipment at Work Regulations 1992 Section 2(1) of the Health and Safety at Work etc. Act 1974	Footwear worn by employees working in the [food production] area is not suitable for reducing the risk of injury from slips and falls to the lowest level reasonably practicable	<p>Compliance with this Notice may be achieved by:</p> <p>Either:</p> <ul style="list-style-type: none"> • Carry out an assessment to identify footwear suitable for use within the [food production] area; and <p>b) With reference to the findings of the assessment, provide relevant staff with footwear having soles of sufficient slip resistance for the type of floor and floor contamination in the [food production] area;</p> <p>Or: Any other equally effective means.</p>
6. Trips: suitable floor condition	The reasons for the said opinion	Schedule

Regulations 12(1) and 12(2) of the Workplace (Health Safety and Welfare) Regulations 1992 Section 2(1) (and 3(1) if applicable) of the Health and Safety at Work etc. Act 1974	The floor around the [main door sill] is broken and loose and there are holes in the flooring in the [department] which could cause [staff and visitors] to trip and sustain injury.	Compliance with this Notice may be achieved by: Either: The floor around the [main door sill] should be repaired leaving the floor even and free from holes so that it does not present a trip hazard. The fact that [roll cages being delivered] have probably damaged this area should be considered when deciding on the materials used to carry out this repair. The holes in the floor in the [department] should be repaired leaving the surface even and free from trip hazards. Or: Any other equally effective means
7. Trips: floor free from obstructions	The reasons for the said opinion	Schedule
Section 2(1) of the Health and Safety at Work etc. Act 1974 Regulation 12(3) of the Workplace (Health Safety and Welfare) Regulations 1992	The floor and traffic routes [including the staircase] in the workplace are not, as far as is reasonably practicable, free from obstructions and from articles which may cause a person to trip or fall	Compliance with this Notice may be achieved by: Either: Devise and implement a safe system of work to ensure that the floors in access routes are free from any articles that may cause a person to trip, e.g. by marking areas and keeping them clear of obstructions and controlling deliveries or production to keep stock at safe levels. Ensure pedestrian traffic routes are of sufficient width. Introduce a monitoring system to ensure that any dropped or misplaced items in these routes are promptly identified and cleared. Or: Use any other equally effective means
8. Slips: suitable flooring surface	The reasons for the said opinion	Schedule
Regulations 12(1) and 12(2)(a) of the Workplace (Health, Safety	The flooring surface within [ward X and attached shower room], both used	Compliance with this Notice may be achieved by either: <ul style="list-style-type: none"> • Modifying or replacing the flooring where the wet contamination from

<p>and Welfare) Regulations 1992</p> <p>Sections 2(1) and 3(1) of the Health and Safety at Work etc. Act 1974</p>	<p>for the care of the elderly, presents a risk to the health and safety of [employees and frail elderly patients]. Specifically, the flooring surface, when contaminated with [liquids, including water and biological contamination], presents a high risk of falls arising from slipping.</p>	<p>all sources cannot be reduced to negligibly low levels. This modification or replacement should be suitable for [the particular patient group within this area]. The flooring surface should be of sufficient surface roughness and coefficient of friction to provide adequate slip resistance for foreseeable liquid contamination.</p> <p>When selecting a modification or replacement floor surface you should take into account the following:</p> <ul style="list-style-type: none"> • Intended location; • Who will use the floor and how often; • Demands made on the floor surface; • Likely contamination; • The properties of the surface itself; • How it will be cleaned and how often; • Maintenance; and • Other legal requirements. <p>Or: 2. Any other equally effective means.</p>
<p>9. Management of slips and trips risks</p>	<p>The reasons for the said opinion</p>	<p style="text-align: center;">Schedule</p>
<p>Management of Health and Safety at Work Regulations 1999, Regulation 5</p> <p>Health and Safety at Work etc Act, Section</p>	<p>You have failed to make and put into practice arrangements for the effective planning, organisation, control, monitoring, and review of the preventive and protective meas-</p>	<p>Taking into account any assessment of risks to persons from slipping, tripping and falling at the location specified, and having regard to the nature of your activities and the size of your undertaking, you should:</p> <p>determine what arrangements are appropriate to ensure that the introduction of those preventive and protective measures identified in the risk assessment is effectively planned. You should also determine what arrange-</p>

2(1)	ures that will, so far as is reasonably practicable, avoid or reduce the risk of injury to employees from (specify activity)	ments are appropriate to ensure the effective organisation, control, monitoring and review of the preventive and protective measures, and you should record those arrangements and implement them. Alternatively, any other equally effective steps can be taken.
10. Unsafe cleaning operation	The reasons for the said opinion	Schedule
Health and Safety at Work (etc.) Act 1974 Sec 2(1) Management of Health and Safety at Work Regs 1999, Regs. 3 and 5 Workplace Health, Safety and Welfare Regs 1992, Reg 12(3)	There is a risk of your employees slipping and falling in area XXX because you have failed to ensure in so far as is reasonably practicable that they are prevented from accessing floors, at times during and after cleaning, while the floor is still wet and unduly slippery.	To comply with this Notice you should complete: EITHER items 1, 2 and 3 OR Item 4. <ul style="list-style-type: none"> • Implement the arrangements in (2) and (3) below for preventing slipping accidents on the floors in area XXX, so far as is reasonably practicable, during and after cleaning. 2. Implement: <ul style="list-style-type: none"> • suitable cleaning regimes (such as timing the cleaning to be undertaken at times when there is the least number of pedestrians in the area); ii) safe systems of work to ensure the slip risk is controlled, such as a cleaning method that leaves the floor dry; preventing pedestrian access to the areas being cleaned; or providing alternative routes for pedestrians. 3. Set up a system for checking compliance with your safe systems of work for cleaning floors. The system should include reference to: <ul style="list-style-type: none"> • Which named individual(s) is/are responsible for monitoring compliance; ii) How (including how often) they should monitor compliance; iii) What they should do if non-compliance is found. OR... 4. You should take any other equally effective measures to eliminate or control the risks to persons slipping on floors in XXX.

11. Preventing [food] spillages from machinery from contaminating floor	The reasons for the said opinion	Schedule
<p>Health and Safety at Work (etc.) Act 1974 Section 2(1)</p> <p>Workplace Health, Safety and Welfare Regs 1992, Reg 12(3)</p>	<p>Food spillages from machines and conveyors in the pastry preparation area are causing the floor to become slippery. There is a risk of staff slipping, falling and sustaining injuries.</p>	<p>1. Provide drip trays under machines and conveyors in the pastry preparation area where there is the potential for spillages of foodstuffs onto the floor; and</p> <p>2. Devise and implement a procedure to ensure that any spillages which do fall onto the floor of this area, and which could present a slip hazard to pedestrians, are detected promptly and cleaned-up effectively.</p> <p>Alternatively, any other equally effective steps can be taken.</p>

9. INSPECTION CHECK LISTS FOR SLIPS AND TRIPS

Overview of Issues

To successfully tackle slips and trips risks, employers will need to consider most, if not all, of the factors listed here. The combination of measures used should reflect management control through the practical implementation of a good health and safety management system.

Environmental factors

Physical Design Features

NB consider suitability of outdoor walking surfaces when contaminated by rain, snow, ice.

- floor – condition; friction; suitability when contaminated; suitability for amount of traffic;
- steps / stairs – condition; suitability when contaminated, uniformity of tread/rise;
- handrails and guard rails;
- slopes - steepness; suitability when contaminated, changes in slopes;
- artificial lighting - location: dark zones, uniformity of illumination
- facilities for waste storage;
- marking of access routes;
- facilities for storage off access areas and walkways; and
- design for easy cleaning – drainage.

Direct Risks

Frequency of:

- contamination;
- uncorrected spillages; poorly cleaned floors/steps etc;
- unreported/uncorrected defective walkways/steps etc; and
- accumulated stock/product/waste on floors/gangways etc.

Organisational factors

Responsibility, Authority, Accountability

- management commitment to reduce slips, trips and falls accidents – any instances of managers walking past and taking no action?
- clear responsibility for factors in work area which could increase risk;
- accepting responsibility and accountability for these factors;
- safety inspections/audits addressing slip/trip risks?;
- signing off completed maintenance work only after flooring cleaned and dried; and
- feedback from investigations etc. used by management for continuous improvement.

Procedures

- for speedily reporting and dealing with spillages, breakages, faults, light failure etc;
- for maintenance and repair of floors and leaking plant; and
- for effective cleaning and good housekeeping.

commitment to using these procedures to report problems

Supervisors

- ensuring that spillages are cleaned up straight away;
- correcting any poor cleaning methods;
- correcting any poor behaviour (e.g. rushing around); and
- ensuring correct footwear is always used.

Task-related Factors

- jobs planned to avoid carrying;
- extent of lifting/pushing/turning/twisting/long strides;
- extent that job requires movement around workplace;
- a tendency to rush around; and
- presence of inevitable job-related floor contamination.

Individual factors

Communications & Information

- willingness to report any unsafe conditions, unplanned events etc;
- positive supervisor/management response to being informed of the above; and
- provision of information to workforce on slip, trip incidents & their severity.

Safety Attitudes of the Workforce

- attitude to taking extra care with respect to improving own safety and improving the safety of others;
- workforce commitment to reduce slips, trips and falls accidents; and
- willingness to abide by rules on anti-slip footwear at all times.

Observable Behaviours

- immediate cleaning-up of spillages?
- good housekeeping standards?
- habitual use of handrails?
- no rushing around?
- correct footwear worn?

10. REFERENCES TO GUIDANCE AND INFORMATION SOURCES

HSE guidance and information

1. Workplace Health Safety and Welfare - Regulations, ACOP and guidance L24
2. Slips and trips - Guidance for employers on identifying hazards and controlling risks HSG 155
3. Preventing slips and trips at work HSE free leaflet INDG225 (rev 1)
4. Slips and trips - Guidance for the food processing industry HSE booklet HSG156 (Note: additional references are given in appendix 3 of HSG156.)
5. Slips and trips: Summary guidance for the food industry Food Information Sheet 6
6. Stop Slips in Kitchens information pack <http://www.hse.gov.uk/slips/kitchens/index.htm#infopack>
7. A Recipe for Safety (revised 4/99) HSE booklet TOP 05
8. Preventing slips and trips in kitchens and food service – Catering information sheet 6 (rev.)
9. Slips and trips in the health services – Health Services information sheet 2
10. Preventing slip and trip incidents in the education sector – Education information sheet 2 (rev 1)
11. Slips and Trips: The Importance of floor cleaning [PDF 60kb] Slips and trips 2
12. Revised slips assessment tool for use by HSE and local authority field staff and by duty holders OC 207/2 and LAC 77/1
13. the slip resistance of flooring – a technical information sheet Slips and trips 1 (rev 1)
14. Stop Slips video HSE Books
15. Slips and trips campaign materials on slips and trips pages on HSE web site www.hse.gov.uk/slips/index.htm
16. Slips and trips speakers pack - powerpoint presentation [3.2MB zip file]
17. Information for inspectors on selecting slip-resistant footwear, inspection/enforcement case studies etc, – see slips and trips pages on HSE Intranet <http://intranet/slips/inspection.htm> and LA Extranet.

18. Five steps to risk assessment HSE booklet INDG163 (rev)
19. Management of health and safety at work - ACOP and guidance L21
20. Personal protective equipment at work L 25
21. Involving employees in health and safety - forming partnerships in the chemical industry HSG 217

Other information

22. CIRIA - Safer surfaces to walk on – Reducing the risk of slipping [this file is very large and may take a while to download PDF 21MB]
23. The measurement of floor surface slip resistance: guidelines recommended by the UK Slip Resistance Group, 2005 Secretary Malcolm Bailey tel. 01923 858323
24. Health Technical Memorandum on Flooring (HTM) 61 – Department of health 2006
25. Internal floor finishes: specifiers' handbooks for inclusive design – Centre for Accessible Environments 2006