

QBE INSURANCE ISSUES FORUM

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QBE
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Operations



SLIPS, TRIPS AND FALLS ON THE LEVEL

OVERVIEW

Slips, trips and falls (STF) are the number one cause of major injuries to employees. They account for 37% of Health & Safety Executive reported accidents, and over 50% of public related injuries. In addition, STF may often lead to other classified injuries such as falls from height or muscular skeletal disorders.

Despite occupationally-classified STF accidents costing circa £800 million to UK plc, STF are often not taken seriously. Perhaps inevitably in this context, causes are often poorly understood, and risk assessment and management controls deficient.

On 26th January 2006 new guidance, "Safer surfaces to walk on – reducing the risk of slipping" (CIRIA C652) funded by HSE became available.

The vast majority of STF incidents are wholly avoidable. In this Issues Forum, we draw on the CIRIA and other guidance to assist you in developing strategies to reduce accident numbers and contain claim costs from both slipping and tripping incidents.

IMPACT ON INDUSTRY

STF are prevalent across all industries. HSE report that circa 25% of RIDDOR accidents in the manufacturing sector are STF. This rises to circa 38% in the food industry, 40-45% within offices and over 50% in sectors such as leisure, education and health.

In order for the HSE to meet their 'Revitalising' targets, STF have been identified as a priority programme. From 2001 the target was to reduce the incidence rate of fatal and major STF injuries by 10% by 2010 and 5% by 2004. Originally, the programme was agreed by the Health and Safety Commission (HSC) as a priority programme for Local Authorities only. The HSE became involved in 2003, and in part this later introduction of HSE has meant initial targets have not been met.

In the HSE's Slips and Trips Programme Plan for 2005-2008, a revised target of reducing STF major injuries by 5.1% by 2008 has been set and QBE are recommending to their Insureds that this is considered the minimum target.

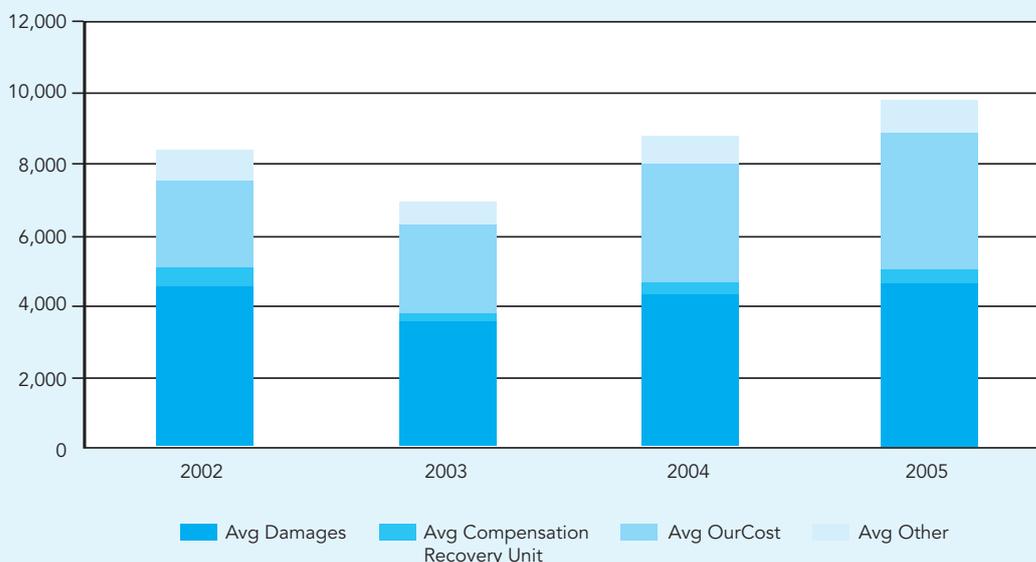
QBE STF CLAIMS EXPERIENCE

QBE has analysed all Slip and Trip claims reported on its Employers' Liability portfolio since 2002. There are parallels to HSE statistics in that:

- For our largest STF claims producers, employers' liability claims of this type average 28% of their claims experience with an average claim frequency of 3.5 claims per 1000 employees
- The average value of a STF claim in 2004 was £8,800 with incurred costs of all STF claims since 2002 now approaching £30 million
- We successfully defend circa 25% of STF claims but this increases significantly with our best practice insureds

There is obvious scope for QBE clients to target improvements in their own STF claim rates. Any client requiring further detail on their own STF claim performance is invited to contact their respective Broker, Underwriter or Liability Risk Manager.

GRAPH 1 – AVERAGE COST OF ALL SLIP & TRIP CLAIMS SETTLED BY YEAR



LEGAL DUTIES

The main legislation associated with slips and trips claims will be:

- Health and Safety At Work etc Act 1974 (HSW Act) which places a duty on employers to ensure the health and safety of employees and others who may be affected by their work activities.
- The Management of Health and Safety at Work Regulations 1999 build upon the HSW Act and include duties for people in control of workplaces to assess risks (including STF). They also require appropriate arrangements for planning, organisation, control, monitoring and review of any measures to safeguard health and safety as identified by the risk assessment.
- Regulation 12 of Workplace (Health, Safety and Welfare) Regulations 1992 states:
 - Every floor in a workplace and the surface of every traffic route in a workplace shall be of a construction such that the floor or surface of the traffic route is suitable for the purpose for which it is used.
 - Without prejudice to the generality of paragraph (1), the requirements in that paragraph shall include requirements 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 his health or safety; and every such floor shall have effective means of drainage where necessary.
 - So far as is reasonably practicable, every floor in a workplace and the surface of every traffic route in a workplace shall be kept free from obstructions and from any article or substance which may cause a person to slip, trip or fall.
- The Occupiers Liability Act places a duty on occupiers of premises to ensure all reasonable steps are taken to safeguard persons from known dangers or dangers the occupier should reasonably know exist (including STF).



Trip hazard

CASE LAW REVIEW

From the regulatory perspective, it is highly likely the employer or occupier will owe a person who has slipped or tripped a duty of care, but there may be grounds for claims defence if the employer or occupier has taken all reasonable steps to control the risk.

The following cases are examples of success. Whilst they are instructive, it may be a mistake to infer any general tariff or rule as all cases will turn on their own particular circumstances.

FURNESS V MIDLAND BANK PLC (2000)

F slipped on a few drops of water that had been spilled on stairs. F alleged breach of statutory duty by the defendant under the Workplace (Health, Safety and Welfare) Regulations 1992. Making an order dismissing F's claim, it was concluded that the degree of risk from such a spillage was extremely small, and to protect F from a fall would have required continuous supervision of the staircase, which was not reasonably practicable. F sought to show that the defendant had failed to take reasonable precautions against spillages on the stairs. What the defendant should have done, F argued, was instruct the workforce, or some of them, to keep a look out for spillages. In failing to do so, F claimed, the defendant had failed to discharge its statutory duty under the 1992 Regulations. The defendant argued that the appeal should be dismissed because it carried out health and safety checks periodically, and that the staircase was cleaned at the end of each working day.

It was held that:

- (1) The spillage of water on the stairs was clearly a substance which was capable of causing a slip or fall. The burden was therefore upon the defendant to establish that it was not reasonably practicable to keep the stairs clear of spillage (*Nimmo v Alexander Cowan & Sons Ltd (1968) AC 107*)
- (2) There was no doubt that it was reasonably practicable for the defendant to have instructed its employees in the manner suggested by the appellant. However, a failure to make such an instruction was not a breach of the 1992 Regulations
- (3) If there were frequent spillages, it would have been necessary to have instructed staff to be alert and deal with spillages (*Ward v Tesco Stores Ltd (1976) 1 WLR 801*)
- (4) In cases such as the present one however, where spillage was very rare and the premises were used by employees only, it was absurd to consider that the suggested instruction served a useful purpose

- (5) There was no requirement for the defendant to instruct its staff to keep a look out for spillages. It was not reasonably practicable for the defendant to keep the staircase free from spillages of such a small amount
- (6) Accordingly, the Recorder reached the correct conclusion, namely that F had not established a breach of the 1992 Regulations. Appeal dismissed.

JAMES V PRESELI PEMBROKESHIRE COUNCIL (1992)

J tripped on a three quarter inch gap between paving stones for which P was the responsible authority. It was held, that P was not liable. The relevant question was not whether the pavement was in a poor condition but whether the particular spot where a plaintiff fell was dangerous. Not every defect in a highway is "dangerous", and what was required in this context was the sort of danger which an authority may reasonably be expected to guard against. The court accepted that 25mm (1 inch) was the point at which highway authorities generally considered a trip hazard to require repair.

LAVERTON V KIAPASHA (2002) W.L. 31476475. (CA)

L slipped and sustained injury while walking on the wet tiled floor of K's takeaway premises after drinking with friends. K appealed against a decision awarding damages to L and finding K wholly liable for having breached its duty of care under the Occupiers' Liability Act 1957. It was held in the appeal that K had taken reasonable care in the circumstances of the case. K had fitted non-slip tiles, and whilst it was inevitable that customer would walk in water during wet weather; it was impractical to mop during busy periods and unreasonable to expect that K ensure that the doormat remained in front of the door. Had K been found liable, L would have been 50% contributorily negligent as she had not taken the care reasonably expected from a person when walking on an obviously wet floor.

GREEN V ASDA STORE LTD (UNREPORTED, MAY 22, 2003) (CC)

G slipped on a single grape in a supermarket owned by A, and consequently sustained injury. G alleged that A had failed to implement an adequate system of cleaning and had thus failed to discharge their duty of care. A submitted evidence that it operated a "clean as you go" system under which employees were to be alert to spillages at all times. A janitor from an independent company also patrolled the produce section every 30 minutes (though no evidence was submitted as to whether this was implemented on the accident day).

A also submitted evidence that in the year of G's accident 1,905,887 customers had passed through the store and that during the same duration only nine similar incidence had occurred. It was held that A was not liable. The grape could have been there only a matter of seconds or perhaps a little longer and there was an adequate and properly implemented maintenance system. Thus, A had taken reasonable care in all the circumstances of the case.

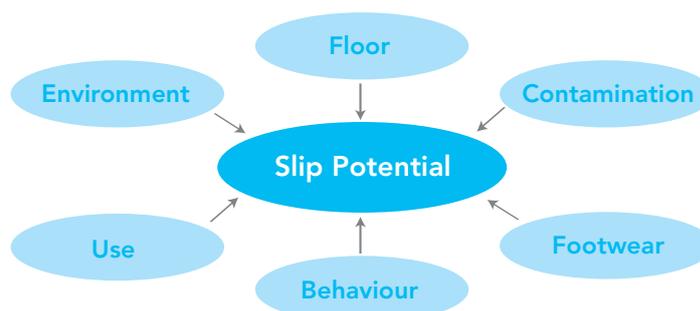
STF RISK MANAGEMENT STRATEGY

By way of a generic risk management strategy, the following should be considered.

1. You maintain adequate data on STF accidents to include accident numbers, accident frequency, accident severity (days lost), root cause of accident, location of accident, time of day etc.
2. Your Board set realistic targets on STF accident reduction, reduction of days lost, reduction of claims incidence, improvement in claims defensibility rates etc. Such targets should relate to company, department and individual line managers.
3. The required competence is in place within the H&S department or company's "competent person" and at manager/employee level.
4. STF risk assessments are undertaken to the principles of the "Slip Potential Model" (see detail below).
5. Documented controls to reduce contamination and obstructions on floors are introduced.
6. An appropriate footwear policy is defined for employees.
7. Cleaning, inspection and maintenance regimes are defined and documented.
8. Employees and managers responsibilities and job descriptions are defined.
9. The STF management system is auditable and audited.
10. The Board monitor and review STF performance.

HSE SLIP POTENTIAL MODEL

This model provides a succinct summary of the elements to be considered during a slip assessment (i.e. Is the floor surface suitable for the environment it is in, for the intended users and the behaviour they may exhibit?). Where practicable, you will need to have influence over the footwear of users and consider arrangements for preventing and removing foreseeable contamination on the floor.



HSE'S SLIP ASSESSMENT TOOL (SAT)

The HSE's slip assessment tool can be found and downloaded at www.hsesat.info. This is a useful tool to aid your risk assessment in line with the slip potential model and the comments below. To use the SAT you will need to obtain a floor surface roughness meter, and links to obtain these can be found on the HSE web pages. Alternatively, you could liaise with your Local Environmental Health or HSE Office.

FLOORING

The CIRIA guidance describes testing equipment to determine Slip Resistance Value (SRV) of floor surfaces. The preferred test is using the "Pendulum". Further research has indicated that the relative risk of slipping from surfaces with a specific SRV may be as follows

Risk 1 in:	Minimum SRV
1,000,000	36
100,000	34
10,000	29
200	27
20	24

The message here is that floors with an SRV greater than 36 are preferable to minimise slip incidents. A simpler test and one which forms part of the SAT, is to measure surface roughness. Slips will be minimised if the surface roughness of the floor is greater than 20 microns. These benchmarks generally apply where water is the floor contaminant and will need to be uplifted depending on the type of contamination. Within the food industry, a surface roughness greater than 30 microns is recommended.

This is not to say all "smooth" floors need to be replaced. Typically all dry floors provide a sufficient SRV but the type of floor needs to be selected in line with its use, the contamination foreseeable and the cleaning that is practicable to remove contamination. The SRV of common floor surfaces can be seen below.

Floor	SRV Dry Floor	SRV Wet Floor	Roughness/Microns
Parquet	74	10	1.6
Unpolished Terrazzo	52	27	6.4
Quarry	55	41	12.5
Vinyl Safety	56	33	16.5
Cork	65	50	54.9
Vitrified Ceramic	53	20	2.5
Polished Terrazzo	52	17	1.3
Carborundum Quarry	65	57	22.6
Profiled Ceramic	N/A	21	8.4

CONTAMINATION

Contamination can be any substance on the floor surface, whether it is a wet or dry substance. By removing the contamination and returning the floor to a dry state, the risk of slipping will be insignificant. Preferably the assessment process will identify all sources of potential contamination and introduce controls to prevent the contamination reaching the floor or to prevent its spread e.g. building canopies, entrance matting, drip trays around machines & conveyors....etc.

Where constant or frequent contamination on a floor, with a poor SRV, is foreseeable and users cannot be prevented from using such a floor then liability is likely to attach. In such circumstances, the use of warning signs or cones is unlikely to absolve a duty of care and employers and /or occupiers in these circumstances should plan to replace or treat the floor so that the SRV or surface roughness of new floor is suitable for the type of contamination expected.

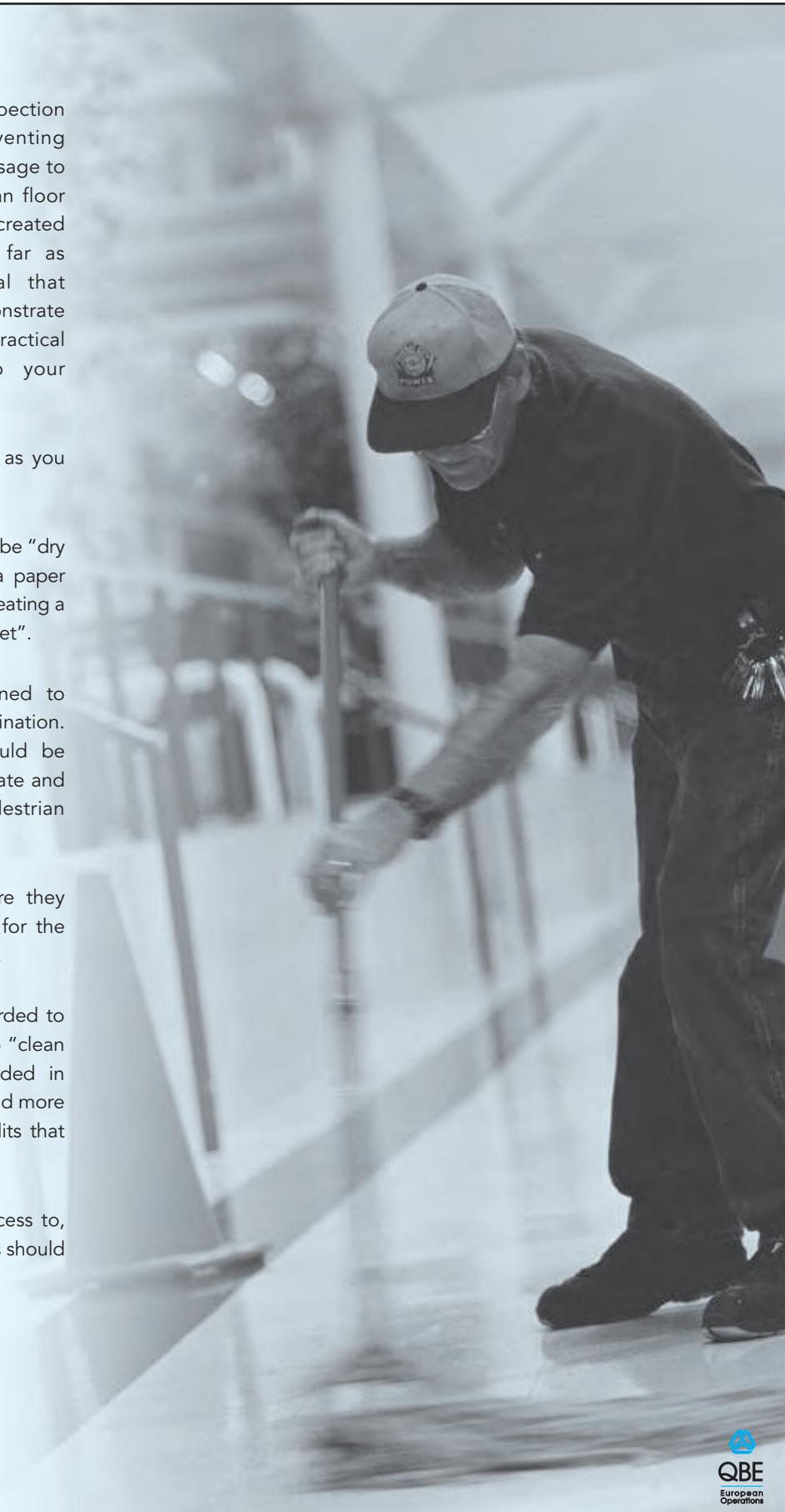
A common argument for not increasing surface roughness of a floor is a perceived inability to clean floors to required hygiene standards. Further research is summarised in the CIRIA guidance, which shows this argument to be unfounded, subject to applying the correct cleaning technique for the type of floor.



CLEANING

A well defined cleaning regime and inspection system is a crucial element in preventing accidents and successful claims. The message to instill in all employees is that a dry, clean floor will be a safe floor. Systems need to be created that maintain this dry/clean state as far as reasonably practicable. It is essential that documentation is maintained to demonstrate these systems have been adhered to. Practical systems to consider and adapt to your circumstances include:

- All employees participate in a “clean as you go” regime.
- “Clean as you go” methodology should be “dry cleaning” where practicable e.g. use a paper towel to absorb a spillage rather than creating a greater surface risk with “mop and bucket”.
- Thorough ‘wet cleans’ to be designed to cleanse floor and remove all contamination. Where practicable, such cleans should be cordoned off until returned to a dry state and done at time of day when pedestrian movements are at their lowest.
- Employee training provided to ensure they apply the correct cleaning technique for the respective contamination encountered.
- Active monitoring techniques are recorded to demonstrate employees are working to “clean as go” routine. These can be included in manager/supervisor’s responsibilities and more formally perhaps by departmental audits that score housekeeping performance.
- In premises, which the public have access to, regular inspections of the thoroughfares should be recorded at least hourly.

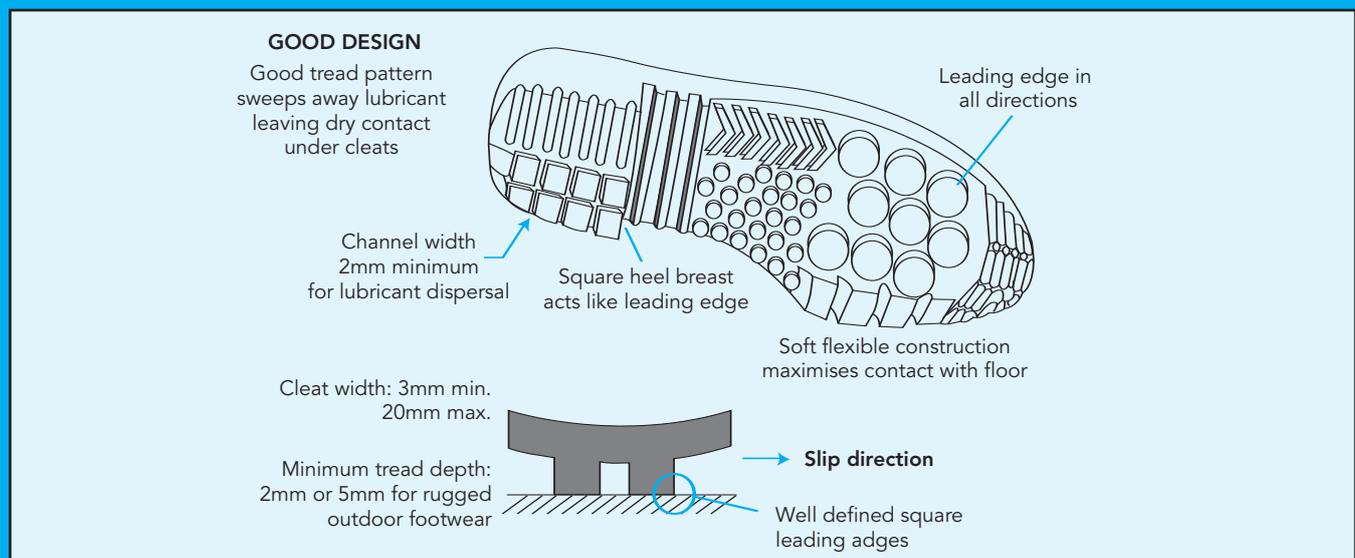


FOOTWEAR

The selection of footwear for employees will form part of your Personal Protective Equipment risk assessment. The risk of slipping needs to be considered alongside other risks to the foot such as falling objects or materials piercing the sole. Research in to the slip resistance of footwear highlights:

- Not all safety footwear is slip resistant.
- The properties of the shoe sole are highly relevant in determining with a pedestrian slip.
- The surface roughness and material hardness of the sole have a significant influence on its frictional characteristics and therefore, its slip resistance.
- The wear rate and to a degree cleanability of the sole influences the surface roughness levels throughout the life of a shoe sole.
- Wearing flat shoes that maximize the area of contact with the floor, especially at the heel, can reduce the number of slip injuries considerably.
- To improve the slip resistance in contaminated conditions, the shoe sole should generally have deeper cleating and a well defined tread pattern.
- Footwear should fit correctly. Slipping is more likely if the wearer's foot moves within the shoe.

Footwear that has performed well on the DIN 51130:2004 Ramp Test exhibit the following characteristics as highlighted in this diagram from SATRA's design guidelines for good slip resistance.



TRIPS RISK CONTROL

Of the HSE's statistics on STF, 25-33% of these are due to "tripping". The above comments are specific to "slipping" but the principles will apply to tripping incidents too.

The main difference between slips and trips is the causative element. Primarily, trips are caused by poor housekeeping. Your risk assessment needs to address common causes of tripping (e.g. trailing cables, uneven edges to flooring or gratings/covers, loose mats/carpet tiles, temporary obstructions, unseen changes in floor level). By removing these obstructions, or making them more visible to the person, tripping incidence should significantly reduce.

Many companies have achieved considerable success with the "5S Philosophy". This system aims to eliminate unnecessary items from the workplace using the principles of 'Sort, Set in order, Shine, Standardise and Sustain'.

ACTIVE MONITORING

All the controls identified by your STF risk assessment will need to be actively monitored. Shortcomings that have hindered claims defence include:

- failure to monitor wear and tear on floors and to maintain the slip resistance value of floor
- failure to inspect and replace footwear
- poor preventative maintenance
- faded floor markings denoting clear zones
- incorrect cleaning procedures
- poor recording of inspection and cleaning procedures etc.

ACCIDENT INVESTIGATION

A key part of any claims defence is good accident investigation. QBE claims inspectors can guide you through this process. With regard to slips and trips, it is important all mitigating factors are recorded including the condition of the floor, any contamination present, what the person was doing, the environmental conditions, quality of lighting, footwear worn etc. It is important the investigator records facts and does not express opinions that could hinder defence if all the reasonable control measures mentioned above are in place.

With regard to public liability claims, you may often not be aware of any incident until a claim is submitted. Here the value of your active monitoring, and systems that record your cleaning and inspection regimes come into play to demonstrate at the time of the alleged accident you had done all one could reasonably expect.



CONCLUSIONS

In quoting the HSE, "You may only be managing half of safety, How about Slips and Trips?".

With recent research, guidance and the introduction of the slip assessment tool, a structured risk managed approach can now be developed within all organisations. If followed, this should lead to significant improvements in accident frequency rates and improved systems to allow defence of claims that develop. With the magnitude of slip and trip incidents within British society, the financial and moral rewards make a case for action very compelling.

REFERENCES

1. "Safer surfaces to walk on – reducing the risk of slipping" (CIRIA C652)
2. HSE, Slips and Trips Programme Plan for 2005-2008
3. HSE Web Pages www.hse.gov.uk/slips
4. HS(G)155 Slips and Trips – Guidance for employers on identifying hazards and controlling risks
5. HS(G)156 Slips and Trips – Guidance for the Food Industry
6. Health and Safety Laboratory – Pedestrian Slipping Workshop
7. Lawtel UK – Case Law

AUTHORS

Jon Lawrence, Liability Risk Manager

Jon joined QBE in 2001. He has 18 years experience in the Insurance industry. The past 14 years have focused on advising clients in the management of health and safety, and developing bespoke solutions to manage their liability exposures.

Jon was a member of the steering group of CIRIA C652, "Safer Surfaces to walk on...". He is a Chartered Member of the Institute of Occupational Safety & Health.

Isobel Williams, BA(Hons), Claims Management Analyst

Isobel joined QBE in 1999 from an analytical role in the manufacturing sector. Isobel plays a key role in the Claims Operations Team leading business process analysis and change, systems design, data organisation and shaping management information. Identifying the impact of claims trends and changes to the external market environment is part of her role supporting the QBE Claims Management Board.



QBE Insurance (Europe)

Plantation Place, 30 Fenchurch Street, London EC3M 3BD

t + 44 (0)20 7105 4000 f + 44 (0)20 7105 4019

enquiries@qbe-europe.com

www.QBE.com