# Health and Safety Services

### Introduction

Slips and trips are the single most common cause of injuries in workplaces. Slips and trips also account for over a half of all reported injuries to the public. 95% of reportable major slips result in broken bones. It is therefore important that the University puts in place management systems to eliminate or minimise risks from slips and trips. Th

• They I

#### Campus Services

## Campus Services will ensure that:

- An appropriate risk assessment is carried out for the management of risks from slips and trips arising from cleaning activities.
- Staff are trained in suitable safe systems of work, including:
  - o preventing access when wet floors are drying
  - o cleaning at appropriate times to minimise any risk to building users from wet floors
  - o the correct cleaning methods for flooring types and use of chemicals
  - o the safe use of electrical power and extension leads and other equipment that might cause a trip hazard.
- Staff are adequately supervised to ensure that safe systems of work are followed.
- Centrally booked rooms are maintained in a condition that will reduce the risk of slips and trips.

### Further information and HSE guides

- 1. CIRIA Guide C652 Safer surfaces to walk on reducing the risk of slipping. 2006.
- 2. Slips and Trips: Guidance for employers on identifying hazards and controlling risks HSE Books (HSG 155) (ISBN: 0 7176 1145 0 ) (1996)
- 3. Slips and Trips: Guidance for the food processing industry HSE Books (HSG 156) (ISBN: 0 71 ) (1996)
- 4. Assessing the slip resistance of flooring. HSE Technical Information Sheet 03/07. <a href="http://www.hse.gov.uk/pubns/web/slips01.pdf">http://www.hse.gov.uk/pubns/web/slips01.pdf</a>
- 5. Slips and trips: The importance of floor cleaning. HSE Information Sheet 09/05. <a href="http://www.hse.gov.uk/pubns/web/slips02.pdf">http://www.hse.gov.uk/pubns/web/slips02.pdf</a>
- 6. Preventing slips and trips at work. INDG225(rev1). 2005. http://www.hse.gov.uk/pubns/indg225.pdf
- 7. Preventing slip and trip incidents in the education sector. HSE Education Information Sheet No 2 (revised) EDIS2(rev1) 09/06. http://www.hse.gov.uk/pubns/edis2.pdf
- 8. www.hse.gov.uk/slips/information.htm

When specifying new flooring the guidance contained in CIRIA publication	urfaces to
walk on should be followed. This includes the following decision making process	

Stage 1
Stage 2

# Stage 1 Selection of surface options

This will normally be led by the architect, designer and Project Manager, in consultation with the end user.

# Stage 2 Obtaining prime parameters

It is essential that the correct information is available on the floor surface products likely to be used. This will enable the appropriate design decisions to be made based on established parameters. This will mainly consist of pendulum coefficient of friction test and surface microroughness. The likely contaminants must also be taken into consideration, and also features such as slopes.

The Health and Safety Laboratory (HSL) on behalf of the Health and Safety Executive (HSE) has developed a reliable and robust test method. The University of Reading supports these test methods. The methodology is based on using two instruments:

- Pendulum coefficient of friction (CoF) test
- Surface microroughness meter

The Pendulum CoF test BS 7676: Parts 1-3, 2002

This gives a reading in slip resistance value (SRV) also know as pendulum test value (PTV) from high to low.

\_

Pendulum value (SRV) (Four-S rubber)	Potential for slip*
0 - 24	High
24 - 35	Moderate
36 - 64	Low

Note: Slider 96 (Four S)

# Surface microroughness meter

Surface roughness can be used to supplement pendulum test data. The roughness results should be interpreted using the information reproduced in Table 3 (from UKSRG, 2005). Where only roughness data is available then the HSE Slips Assessment Tool (SAT) should be used. This will take account of other factors which affect the likelihood of slips and trips and will provide a High, Moderate or Low score.

Stage 4

Attribute	Comment
	would seriously damage the occupier's image it may be worthwhile to

## Stage 8 Environment

Consider how detrimental effects can be minimised or avoided. Overall design must be considered to reduce contamination as much as possible. One example of this would be the provision of suitable canopies and drainage at entrance ways, to prevent water being brought into the entrance of buildings.

Condensation can also lead to contamination, so this should be designed out as far as possible.

Lighting must be considered the amount of light in an area can help people distinguish between areasBT1 0 0 1 193.1 247.49 094≯10033 48.024 ≰(ea)16(s)]TJET38(i)-2(o)-7(n)e desire iar12(u)5T38

## Stage 9 Footwear

Where there is no control over footwear such as in a public access building, this needs to be taken into account and the worst case scenario assumed. Where there is control over footwear then significant reductions in risk can be made - see Chapter 7 of the CIRIA guide for more information.

# Stage 10 Drainage

Having considered stages 4-9, the next step is to consider if the floor is effectively drained, and will the floor be free from contamination, as far as possible? If yes, move to surface specification, taking into consideration any slopes.

#### Stage 12 Maintenance strategy

Derive the maintenance strategy statement associated with the choices made. The maintenance strategy should involve monitoring the SRV of the floor through the life of the asset. This will enable replacement or restoration of the SRV where necessary. The specifier should agree the maintenance strategy with the end user/occupier and Campus Services, if they are responsible for cleaning the area.

The statement should include the following:

### Physical characteristics

- o Slip resistance parameters (SRV (dry and surface wet), Rz)
- o Anticipated life of the floor product and limiting characteristics
- o The locations where is anticipated the surface will require treatment after a period of use
- o It may also be desirable to provide the design SRV under the worst contamination conditions envisaged if these differ from the surface wet values.

#### Contamination issues

- Anticipated hazards
- o The assumed cleaning regime and associated maintenance

#### Other influences

o The design assumptions regarding other influencing factors, including environment, footwear, use and behaviour (where relevant)

### Management

- o The anticipated maintenance regime (its type, frequency and methodology)
- o Day to day management issues e.g. drying and cleaning of door mats
- o Lighting issues

This statement will provide important information for those who have responsibility for the flooring surface during its lifespan.