Slips and trips: Summary guidance for the food industry

Food Sheet No 6

Why it is important to tackle slips and trips risks

Slips and trips risks are especially important in the food industry because:

- they occur four times more often than the average for industry, and are the main reason for the relatively high overall injury rate in the food industry;
- they are the largest cause of serious injury (32%) in the industry, there is a high rate in all sectors;
- the potential losses could be significant, including costs (estimated at £22 million annually to employers in food, drink and tobacco); loss of key staff; liability (compensation, legal costs, insurance premiums and enforcement action) and individual suffering and disability.

Positively managing the implementation of a comprehensive programme of measures is likely to be cost effective: successful initiatives have reduced injuries by upwards of 66%. Slips and trip injuries can be prevented in the food industry: they are not inevitable.

Understanding how slips and trips risks can be controlled

Slips account for about 86% of the total slips and trips injuries. In 90% of cases they happen because the floor is wet.

Table 1 shows how to keep floors dry. If it is not possible to do that, the floor has to be sufficiently rough, and the environment, task and footwear have to be suitable; individuals have to walk appropriately to the circumstances. High surface roughness is obtained from larger and sharper grains making up the floor surface.

Trips are caused in 75% of cases by obstructions and in 25% by uneven surfaces. Table 2 indicates how to control trip risks.

Managing the control of slips and trips risks

- What practical measures you take will vary for different situations.
- You will need to assess each situation, identify what factors cause slips and trips and match practical control measures to these factors.
- You will need management arrangements to identify and implement the necessary package of control measures for each situation. The four steps to achieve this are listed below.
- plan your overall arrangements to manage slips and trips risks. In most cases, the risks will justify setting these slips and trips arrangements out separately and specifically within the overall safety policy document. Assess the risks and identify what more you need to do by looking at the tables. Get the commitment and support of others, especially senior management;
- organise so that staff know what to do; establish systems for inspection, maintenance, training and consultation with safety representatives;
- control the risks by taking the measures you identify;
- monitor your achievements, eg from accident information, inspections, audits and reports from employees and review your plan regularly.

Legal requirements

Although previous legislation had always required measures against slips and trips risks, recent Regulations have re-emphasised the importance of such measures and shown how to take them.

The Management of Health and Safety at Work Regulations 1999 specify the four steps required for effective risk control arrangements as well as employee duties, training and consultation with safety representatives.

The Workplace (Health, Safety and Welfare) Regulations 1992 requirements for the construction of the floor surface to be suitable by not being ‘slippery so as to expose any person to a risk to their safety’ and for the floor to have ‘effective drainage’ are absolute. This duty can be met by preventing contamination rather than increasing the slip resistance to counteract it.

There are also duties on suppliers of equipment, floor surfaces, floor treatment substances and slip resistant shoes to ensure, so far as reasonably practicable, the inherent safety of their products and to provide information to users.

The Workplace Regulations also absolutely requires the floor construction to have ‘no holes, or slope or be uneven so as to ..... expose a person to a risk’; and so far as reasonably practicable to keep floors ‘free of obstructions and from any article .... which may cause a person to .....trip’ and ‘waste materials shall not be allowed to accumulate ....except in suitable receptacles’.

Table 1 Slips risks controls

Causative factors	*Practical measures for slips risk control*
ENVIRONMENTAL FACTORS	
(a) Contamination of the floor Eg from: ● spillages ● wet cleaning methods ● shoes ● water and grease laden vapour (poor ventilation) ● natural contamination such as wet, and/ or mud in outside areas ● dry contamination, eg polythene bags left on floors, product spillages or cardboard laid over spills	**(1) Eliminate contamination in the first place** Eg maintain equipment to prevent leakage, enclose transfer systems, cover outside areas, use dry methods for cleaning floors If not reasonably practicable: **(2) Prevent contamination becoming deposited on to walking surfaces** Eg by lids on portable vessels, lips around tables, bunds around equipment, drip drays under taps, cleaning incoming footwear, using effective extraction ventilation of fumes and steam with grease filtration If not reasonably practicable: **(3) Limit the effects of contamination** ● by immediate treatment of spillages ● by safe cleaning methods, minimising and drying wet floors ● by prompt repair of leaks ● by limiting the area of contamination, eg by the location of drainage channels
(b) Inherent slip resistance of the floor not maintained adequately Eg from incorrect or inadequate cleaning or maintenance or wear.	If there is still a risk: **(4) Maximise the surface roughness and slip resistance of the existing floor surface** Eg follow an effective cleaning regime as indicated by the floor supplier. Find out from suppliers the correct cleaning regime to remove even thin layers of contamination and cleaning agent residue; and ensure the regime is repeated often enough and adhered to ● Train, supervise and equip those who clean floors to ensure effective and safe cleaning. Frequent spot cleaning can supplement whole-floor cleaning ● Maintain floors and drainage to maximise slip resistance If this is not enough:
(c) The slip resistance of the floor is too low This is influenced by: ● surface roughness of floor ● the friction between the floor and shoe ● the sharpness of the granular microsurface peaks ● the shape and height of ridges in the floor surface if profiled ● the drainage capacity of the floor ● the hardness of the floors ● incorrect installation of the floor	**(5) Increase the surface roughness of the existing floor** Eg stick-on anti-slip strips, matting, treatments and abrading that increase slip resistance If this is still not enough: **(6) Lay a more slip resistant floor with higher surface roughness** In a few cases a new floor may be needed: (1) Draw up a specification for the supplier to meet. Experience of how that floor performs in a similar situation will be the best guide (2) Select a floor with sufficient surface roughness. Floors with a rough surface, and, if appropriate, profiles to drain the wet away, are best for wet conditions (3) Provide effective drainage - profiles, channels etc (4) See the installation is correctly done (5) Check to see the specification has been met (Note: research has shown rough floors can be cleaned to the same level of cleanliness as smooth floors and should not conflict with food hygiene requirements but you should recognise that meeting both safety and hygiene requirements might require more cleaning effort and special equipment) and:
(d) Steps and slopes: do they cause sudden changes in step or not offer adequate foot hold and/or hand hold?	**(7) See steps and slopes give adequate foot and hand hold and have no sudden changes** Eg remove sudden changes in levels and see steps have clearly visible nosings, good hand holds etc. and:

(e) Adverse conditions hiding the floor conditions and distracting attention Eg ● low light levels ● shadows ● glare ● excess noise ● extreme temperature ● bulky/awkward personal protective equipment	**(8) See the prevailing conditions allow good visibility of and concentration on floor conditions** Eg provide adequate lighting, and see environmental demands do not distract attention from the floor condition and:
ORGANISATIONAL FACTORS	
(f) The nature of the task Eg ● the need to carry, lift, push, lower or pull loads ● the need to turn, to move quickly or take long strides ● distractions ● having no hands free to hold on to break a fall	**(9) Analyse the tasks to see no more than careful walking is required in any slip risk area** Tasks should not compromise ability to walk safely. Tasks should be: ● mechanised to avoid the need for pushing, lifting, carrying, pulling etc while walking on a slippery floor ● moved to safer areas ● slowed so operators do not have to hurry and:
(g) Placing vulnerable individuals Eg ● poor knowledge of risks and measures ● poor health and agility ● poor eyesight ● fatigue	**(10) Allocate tasks in slips risks areas only to those competent to follow slips precautions** and:
(h) Insufficient supervision **(i) Safety culture which is not supportive**	**(11) Supervise to monitor physical controls and to see safe practices are followed** and: **(12) Establish a positive attitude that slips risks can be controlled** and:
PERSONAL PROTECTIVE EQUIPMENT: SHOE FACTORS	
(j) Shoes offer insufficient slip resistance in combination with the floor surface, because of ● type of shoe ● sole material ● contamination of shoes ● sole pattern ● wear ● fit ● maintenance/renewal	**(13) Select suitable shoes for the floor, environment and the individual** Base this on experience. Microcellular urethane and rubber soles are the least slippery on level wet floors. Get employees to maintain the shoe soles in good repair and keep them free from contamination. Replace them before they have worn smooth and:
INDIVIDUAL FACTORS	
(k) Unsafe action from staff Eg from lack of: ● awareness of the risk ● knowledge of how slips occur ● information and training or ● distraction, carelessness	**(14) Train, inform and supervise employees** Eg on the risk, the control arrangements and employees role(s), especially to: ● clean as they go ● report contamination ● maintain footwear ● walk appropriately to circumstances **(15) Set procedures for visitors**

Table 2 Trips risks controls

Causative factors	*Practical measures for trips risks control*
	ENVIRONMENTAL FACTORS
(a) Uneven surfaces Eg gulleys, holes, steps	**(1) Eliminate holes, slopes or uneven surfaces which could cause trips risks** Eg inspect and maintain floors so they have a smooth finish and no holes to cause a tripping hazard. Highlight any changes in level and make slopes gradual and steps clearly visible, avoid open gulleys and channels and:
(b) Obstructions Eg accumulation of articles such as work in progress or waste	**(2) Good housekeeping** **(a) Eliminate materials likely to obstruct and cause trips** Eg analyse work flows and design process so waste and product does not accumulate or if this is not reasonably practicable: **(b) Prevent material obstructing** Eg provide sufficient suitable receptacles for work in progress, correctly sited; mark out walkways, working areas and receptacle locations and make sure they are kept free of obstruction and:
(c) Adverse environment Eg inadequate illumination to see floor properly, or glare	**(3) Provide suitable lighting to permit obstructions to be seen** and:
	ORGANISATIONAL FACTORS
(d) The nature of the task creates obstructions	**(4) Analyse the tasks** and process flows to see if the work can be handled to eliminate or minimise obstructions and:
(e) Safety culture which is not supportive	**(5) Establish a positive attitude that trips can be prevented**
	INDIVIDUAL FACTORS
(f) Safe practices not followed	and: **(6) Train, inform and supervise** employees

Further information

Further explanation about slips and trips is given in *Slips and trips: Guidance for the food processing industry* HSG156 HSE Books 1996 ISBN 0 7176 0832 8

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This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance as illustrating good practice.

This information sheet sets out what industry representatives agree is acceptable practice in the food industry.

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