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**Analysis of Slips, Trips and Falls in the UK
Printing and Publishing Industries, 2002-2003**

**Report Number
HSL/2005/02**

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PRIVACY MARKING:

Available to the public (D)

HSL report approval: Dr Steve Thorpe
Date of issue: 21/12/2004
Job number: JS2004022
Registry file: PED ST 2004 22142
Electronic filename: H:\Support\JS2004022 Printing RIDDOR analysis\Printing report final.doc

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EXECUTIVE SUMMARY

In the Printing industry between 2002 and 2003 25% of reportable injuries were caused by slips and trips. If only major injuries are considered, slips and trips account for 41% of injuries. The relative contribution of incidents in Printing and Publishing caused by slips and trips is unknown. In addition, the causes of falls due to slips and trips are also unknown. In view of these gaps in our knowledge, the aim of this piece of work was to analyse the 2002 to 2003 RIDDOR reportable slip and trip accidents for printing and publishing to 1) establish the relative contribution of slips and trips to overall figures, and 2) identify the main causes of slip and trip accidents. Using this information, specific advice relating to the prevention of slips and trips in the printing industry was produced with a view to reproduce the information on the HSE Printing website.

The main findings were as follows

- For the printing and publishing industries, an unusually high proportion of falls were caused by trips (34%).
- The three main causes of falls were identified as poor housekeeping, poor maintenance and inclement weather conditions.
- The three main trip hazards were: pallets, uneven ground and strapping.
- The three main slip hazards were: water and wetness, oil and ice.
- 51% of falls occurred in production areas, 16% outdoors and 13% on stairways.
- Common activities preceding fall events were: whilst walking on the level, ascending and descending stairs and whilst carrying items.

It is believed that by targeting housekeeping, maintenance (eg, repairing vehicle and machinery oil leaks and filling in of potholes) and reviewing procedures in spells of inclement weather, the number of slips and trips in the Printing and Publishing Industries will be reduced.

1 INTRODUCTION

The work outlined in this report was undertaken at the request of Mr Ian Hobson of the HSE Manufacturing Sector.

In the UK Printing and Publishing Industries between 2002 and 2003, there were 341 injuries caused by slips and trips, reportable under the conditions of RIDDOR. In the printing industry, slips and trips are the second most common cause of reported injury, the primary cause of injury being manual handling. To reduce the number of accidents caused by slips and trips we need to understand their underlying causes. The aim of this piece of work was therefore to establish the main causes of slips and trips in the UK Printing and Publishing Industries and to provide guidance relating to how they can be reduced.

2 METHOD

A report of slip and trip incidents in the printing and publishing industries for 2002-2003 was obtained from the Statistics department at HSE. Each incident (341 in total) was coded by the researcher from the information provided in the comments section of the accident record. Each incident was coded into the following categories:

- Fall initiating event. The event that initiated the fall, eg, a slip or a trip.
- Cause. Where possible, the researcher interpreted the underlying cause for each accident.
- Surface condition. The condition of the surface under foot at the time of the accident, eg, an icy surface or surface obstructed by an obstacle.
- Location. The place where the accident occurred.
- Activity. The activity that the injured party was carrying out at the time of the incident.

Where accidents could not be coded into a category, this was due to a lack of information in the accident record comments section.

Of the 341 accidents, most incidents occurred in the printing industry (69%), 21% of incidents occurred in the publishing sector with the remainder occurring in the book binding and finishing sector.

3 RESULTS

3.1 FALL INITIATING EVENT

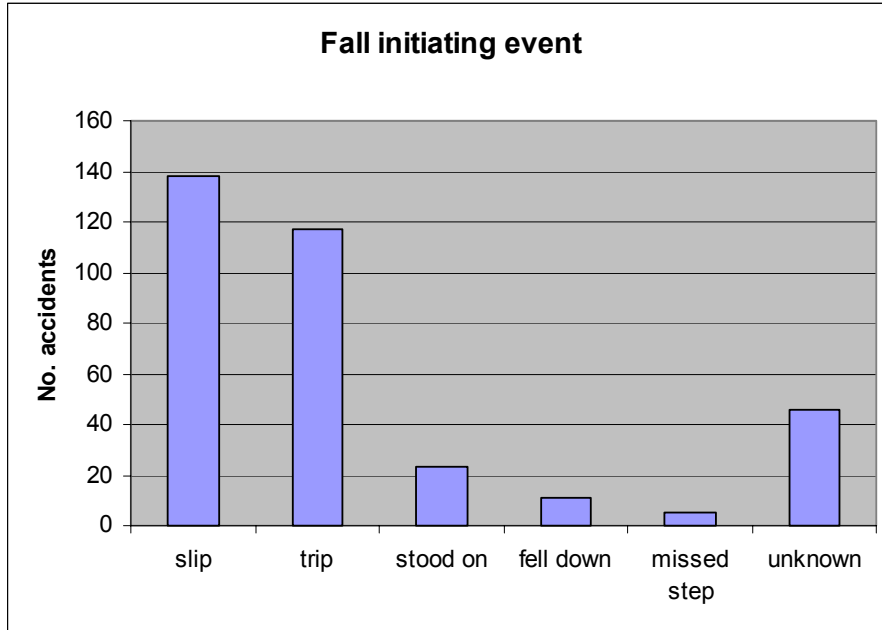


Figure 1 – Fall initiating event preceding the accident.

The majority of injuries were caused by slips and trips. Slips caused 41% of falls and trips caused 34%. The number of falls caused by trips is uncharacteristically high. In most other industries there are approximately 3 slips for every 1 trip (Loo-Morrey & Jeffries, 2003). The relatively high prevalence of trips therefore suggests that targeting aspects such as uneven ground and obstacles could result in marked decreases in tripping incidents.

3.2 CAUSE

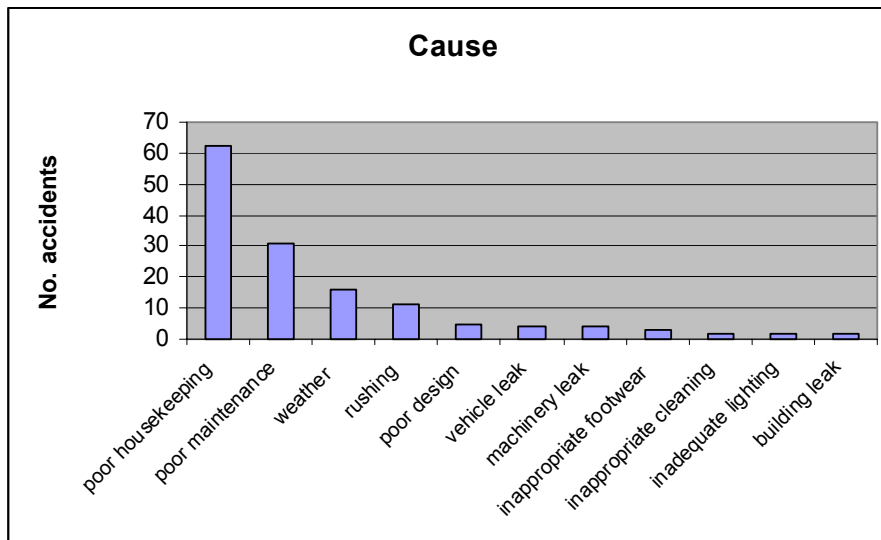


Figure 2 – Cause of the fall.

The three main causes of falls were identified as: poor housekeeping, poor maintenance and inclement weather conditions.

Targeting interventions towards these three causes should result in an appreciable decline in slip and trip incidents. Examples of poor housekeeping included instances where, for example, spills had not been cleared up and where obstacles had been left in walkways. Examples of poor maintenance included instances where individuals had tripped on potholed flooring or, when machinery and vehicles had leaked oil onto flooring resulting in slip incidents. Inclement weather conditions typically involved icy spells of weather, resulting in treacherous conditions underfoot leading to slip incidents.

3.3 SURFACE CONDITION

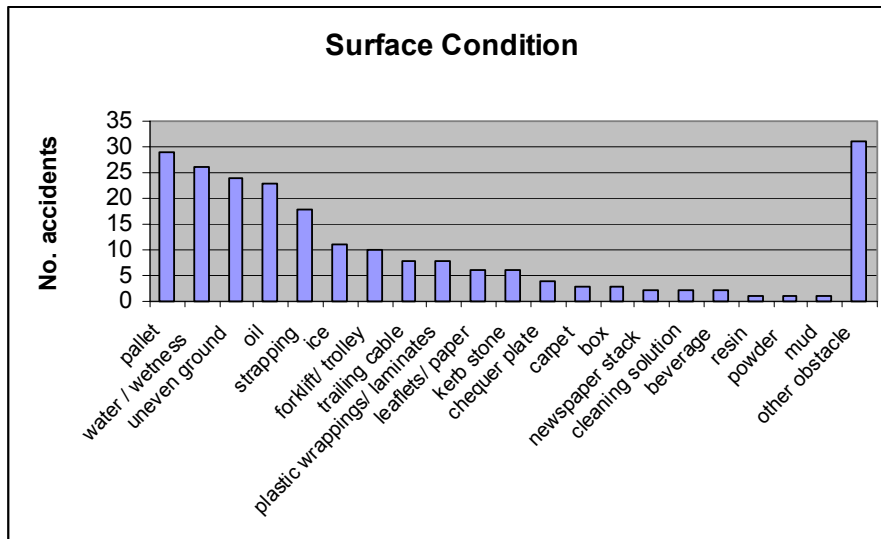


Figure 3 – Surface condition underfoot at the time of the fall.

From the accident investigation comments, it was possible in most cases (65%) to determine the underfoot surface condition at the time of the accident.

The main trip hazards were as follows:

- Pallets (29)
- Uneven ground (usually outdoors) (24)
- Strapping (18)
- Forklift trucks and trolleys (10)
- Trailing cables and wires (8)
- ‘Other’ obstacles, eg, mats, chairs, floor studs (31)

The main slip hazards were:

- Water and wetness (26)
- Oil (23)
- Ice (11)
- Plastic wrappings and laminates (8)
- Leaflets and papers (6)

It should be noted that the majority of these hazards can be tackled by improving housekeeping regimes, eg, keeping walkways clear from obstacles and clearing up spills immediately. Also, improving the maintenance of, eg, floors and machinery will help to reduce leaks and therefore also reduce slip incidents.

3.4 LOCATION

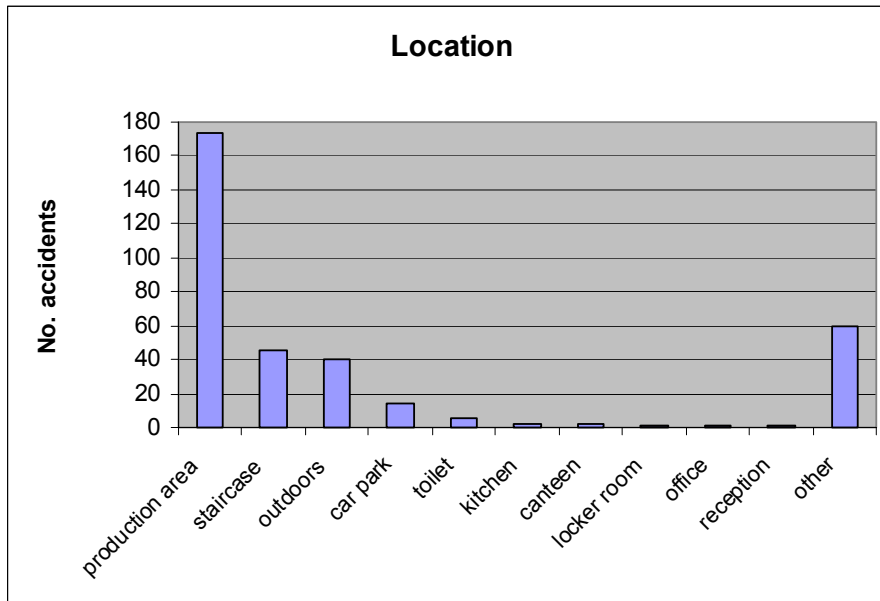


Figure 4 – Location of the incident.

The majority of falls occurred in production areas (51%). Outdoor areas including car parks (16%) and staircases and steps (13%) were also common sites for falls.

Given that 80% of accidents occur in these three main areas, it seems sensible to target interventions at these priority locations.

3.5 ACTIVITY

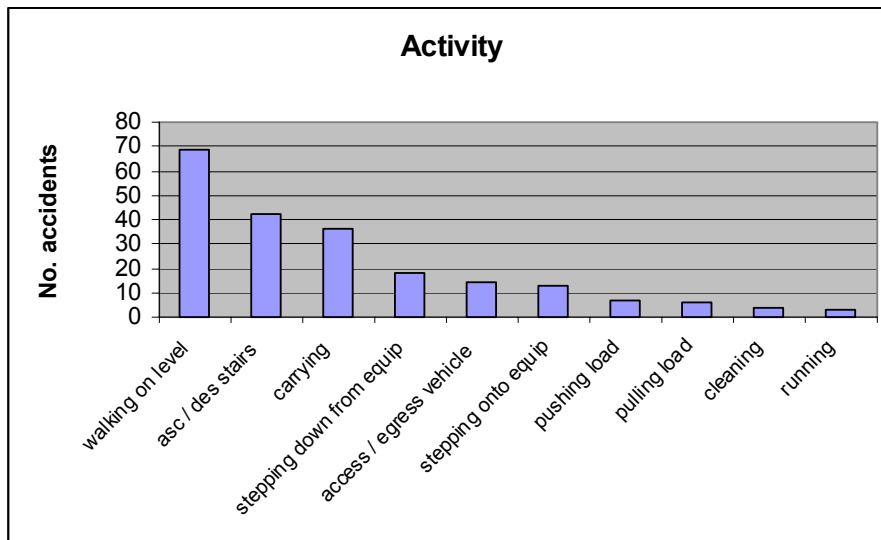


Figure 5 – Activity undertaken at the time of the incident.

Common activities that preceded fall events were: whilst walking on the level (69), ascending or descending stairs (42) and when carrying items (36).

It is likely that the relatively high prevalence of falls whilst walking on the level reflects the amount of time that individuals spend walking during the working day. In contrast, individuals will spend relatively short periods of time on staircases and steps, and so given this relatively low exposure, the prevalence of falls is actually disproportionately high. The carrying of items has also been identified as a risky activity for falls.

4 REFERENCES

Loo-Morrey, M. & Jeffries, S. (2003) Trip Feasibility Study. HSL Report PS/03/05.