



## Health and safety priorities in the meat processing industry

### Food Information Sheet No 15

#### Introduction

This sheet has important information for people involved in the meat processing industry. Your attention will be drawn to the aspects of the working environment which deserve special attention. Past experience shows that these are the most significant risks. The information in this sheet is based on an analysis of the accidents which have been reported to HSE and local authorities by employers. The information is also based on HSE investigations. You should assess all the aspects discussed in this sheet carefully to make sure that adequate precautions are in place, and that they are in place permanently. Usually, once a risk is identified, it will be clear what the appropriate precaution is. However, if you need further guidance on a particular topic, please refer to the Useful information section.

#### The priorities

Table 1 lists the main causes of accidents, in 1989-92, in order of priority. It also tells you about the types of situation and equipment involved. From the information in the table, it seems that it is important to focus on the following, as the risks involved cause 75% of all injuries:

- (a) to prevent fatal accidents, make sure there is safe access for maintenance work which takes place at heights;
- (b) make sure safety precautions are in place for manual handling;
- (c) to prevent slips, avoid wet and greasy floors;

**Table 1**

<i>Kind</i>	<i>Relative significance</i>	<i>Significant factors</i>
Handling	24% of reported injuries; 5% of major injuries.	54% were due to the weight of what was handled and 28% to its sharpness.
Slips and trips	21% of all reported injuries; at 34% of major injuries this is the largest type of major injury and is much higher than even the food industry average.	52% were slips. Of those investigated 80% involved floors which were wet due to splashing or leakages of water.
Struck by objects	16% of all reported injuries; 13% of major injuries.	53% involved hand tools (knives).
Machinery	8% of all reported injuries; 22% of major injuries.	Most commonly investigated accidents involved: (a) packaging machinery 35%; (b) pie and tart machines 23%; (c) bandsaws 11%; (d) patty formers, mincers, conveyors - 8% each.
Struck against objects	6% of all injuries reported.	73% against fixed objects.
Falls from a height	5% of all reported injuries; 11% of major injuries; and 2 out of 3 fatal accidents in the past 8 years.	43% occurred on stairs; 15% from ladders; 14% from vehicles.
Exposure to harmful substances	3% of all reported injuries.	42% involved release of chemicals; 39% involved splashes.
Transport	2% of all reported injuries.	41% involved fork lift trucks; 24% involved non-powered vehicles.

- (d) prevent knife injuries;
- (e) make sure machinery is safeguarded, especially packaging machinery, pie and tart machines, bandsaws, patty formers and mincers;
- (f) check the condition of stairs;
- (g) check the use of ladders.

### Occupational ill health

This information sheet does not cover the causes of occupational ill health within the meat processing industry. Experience of the industry as a whole suggests the main causes are likely to be:

- (a) chronic ill health from manual handling items such as boxed meat;
- (b) upper limb disorders, eg from deboning;
- (c) noise-induced hearing loss.

### The risks compared with other industries

In 1991-92 in the meat processing industry, the overall incidence rates, that is the number of injuries per 100 000 employees, were 282 for major injuries and 3879 for injuries causing over a three day absence (O3D). This meant the average rate was 4161 in total.

This makes the meat processing industry the fifth most risky out of the 19 sectors of the food industry as a whole. The meat processing industry is the 10th worst out of the 200 plus types of manufacturing industry. This is more than three times as bad as the average for manufacturing industry generally (at 1269 overall). The meat processing industry has reported three fatalities since 1988.

These figures are for 1991-92, the last year for which detailed incidence rates are available. But the trend since then is slightly upwards.

### Scope of this guidance

This guidance uses reports from employers whose main activity is coded to Standard Industrial Classification (1980) 4122. This covers bacon and ham curing and smoking, and frozen meat product manufacturing. It also covers the manufacture of other processed and preserved meats including fresh meats, pies, sausages, canned meats and black puddings.

The analysis was confined to injuries reported to the employees of meat processing companies working on and off site. Visitors, contractors and the self employed were excluded.

### Safety checklist

This checklist includes the most common situations which cause accidents, together with preventative measures.

#### Handling

- (a) avoid heavy lifting and pulling movements;
- (b) eliminate as many handling operations as you can;
- (c) if it is impossible to mechanise handling operations, then assess the risk factors and take the appropriate safety precautions.

#### Slips

- (a) make arrangements to avoid spillage and leakage;
- (b) make arrangements to contain unavoidable spillages so they do not contaminate the floor;
- (c) make sure there is effective drainage;
- (d) set up a system for clearing up spillages immediately, and for drying the floor immediately;
- (e) make sure cleaning is effective;
- (f) set up a floor cleaning schedule which is carried out when work is not in progress or has finished for the day;
- (g) make sure wet floors are dried immediately after cleaning;
- (h) make sure floor surfaces are rough enough.

#### Trips

- (a) eliminate obstructions in walkways and at workstations;
- (b) eliminate uneven floors.

#### Struck by objects

- (a) make sure safety precautions are followed when staff use knives;
- (b) make sure staff wear protective equipment, if this is necessary.

#### Machinery

- (a) packaging machinery, bandsaws, pie and tart machines, patty formers, mincers and conveyors must be safeguarded properly.

## Falls

- (a) identify all areas where access is likely to be needed and then arrange safe access;
- (b) check the condition of stairs and keep them free of slip risks;
- (c) make sure stairs have adequate handrails;
- (d) set up a safe system of work for using ladders;
- (e) avoid the need for access onto vehicles, and where this cannot be achieved make sure the access is safe.

## Exposure to harmful substances

- (a) assess how risks arise and identify what can be done to control them;
- (b) make sure there are safe systems for handling cleaning substances;
- (c) make sure staff use cleaning substances correctly;
- (d) make sure staff use personal protective equipment where necessary;
- (e) make sure there is effective management of refrigeration systems.

## Transport

- (a) select fork lift truck operators carefully;
- (b) make sure fork lift truck drivers are properly trained.

## Useful information

- 1 *Essentials of health and safety at work* 1994 HSE Books ISBN 0 7176 0716 X
- 2 *An index to health and safety guidance for the food industry* FIS7 1996 HSE Books
- 3 *A recipe for safety: Health and safety in the food industry* TOP 05 1994 HSE Books ISBN 0 7176 0911 1 (available in priced packs of five)
- 4 *Health and safety in retail and wholesale warehouses* HS(G)76 1992 HSE Books ISBN 0 11 885731 2
- 5 *Workroom temperatures in places where food is handled* FIS3 1994 HSE Books
- 6 *Safe management of ammonia refrigeration systems, food and other workplaces* PM81 1995 HSE Books ISBN 0 7176 1066 7

7 *Workplace transport safety: Guidance for employers* HS(G)136 1995 HSE Books ISBN 0 7176 0935 9

8 *Safety guidance notes - meat industry* 1991 British Meat Manufacturers Association, 19 Cornwall Terrace, London NW1 4QP Tel: 0171 935 7980. These cover knife injuries and many other priority areas, including:

- No 3 - *Knife accidents - First aid*
- No 4 - *Preventing slips, trips and falls on the level*
- No 6 - *Work related upper limb disorders*
- No 7 - *Noise at Work Regulations 1989*
- No 10 - *Safe use of knives*
- No 11 - *Bandsaws*
- No 11A - *Limitations upon the use of bandsaws for cutting fresh meat*
- No 22 - *Mincing machines*
- No 27 - *Derinding, skinning, membrane machine*
- No 29 - *Thermo forming horizontal form fill and seal machines*
- No 51 - *COSHH Regulations in the Meat Industry*
- No 55 - *Personal Protective Equipment at Work in the Meat Industry*

9 *Manual handling: solutions you can handle* HS(G)115 1994 HSE Books ISBN 0 7176 0693 7

10 *Slips and trips: Guidance for the food processing industry* HS(G)156 1996 ISBN 0 7176 0832 8

11 *Slips and Trips: Summary guidance for the food industry* FIS6 1996 HSE Books

12 *Safety in meat preparation : Guidance for butchers* HS(G)45 1988 HSE Books ISBN 0 11 885461 5

13 *Pie and tart machines* HS(G)31 1986 HSE Books ISBN 0 11 883891 1

14 *Safe use of ladders, step ladders and trestles* GS31 1984 HSE Books ISBN 0 7176 1023 3

15 *Safety in working with lift trucks* HS(G)6 1992 HSE Books ISBN 0 11 886395 9

16 *Rider operated lift trucks - operator training* Approved Code of Practice COP26 1988 HSE Books ISBN 0 7176 0474 8

17 *Noise at work* Noise Guide No 1: *Legal duties of employers to prevent damage to hearing* Noise Guide No 2: *Legal duties of designers, manufacturers, importers and suppliers to prevent damage to hearing* *The Noise at Work Regulations 1989* 1996 HSE Books ISBN 0 7176 0454 3

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