



Priorities for health and safety in the dairy industry

Food Sheet No 8

Introduction

This sheet has important information for employers and employees in the dairy industry, that is the processing of milk and the manufacturing of dairy products. Your attention will be drawn to the aspects of the working environment which deserve special attention. 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. If you need further guidance on a particular topic, please refer to the Useful information section.

The priorities

Table 1 lists the causes of accidents, in order of priority. It also outlines the types of situations and equipment involved. From the information in the table, and details of other reported experiences, it is important to focus on the following, as they cause 80% of all injuries:

- (a) transport, eg lorry movement and lift trucks;
- (b) handling;
- (c) slips and trips, eg wet conditions and obstacles that are trip hazards;
- (d) exposure to cleaning fluids;
- (e) falls, eg from ladders and on stairs;
- (f) machinery, eg particularly conveyers and during maintenance and cleaning.

Occupational ill health

This information sheet does not cover the causes of occupational ill health in the dairy industry. The main causes are likely to be:

- (a) chronic ill health from manual handling operations;
- (b) respiratory irritation from breathing in fumes such as chlorine, hypochlorite and ammonia, during cleaning operations and from refrigeration plant.

The risks compared with other industries

In 1991-92 (the last year for which employment totals are available) the overall incidence rates, that is the number of injuries per 100 000 employees, for the dairy industry were 305 for major injuries, 4235 for over 3 day absences (O3D) and 4541 for total injuries.

The dairy industry is the fourth worst performer of the 19 sectors of the food industry. It is ninth worst of all manufacturing groups, and around three-and-a-half times as bad as the average incidence rate for the manufacturing industry generally, which is 1269.

The dairy industry is the worst in the food industry for fatal injuries, reporting seven in the four year period 1991-92 to 1994-95.

In practice this means that if you work in the dairy industry, compared to general manufacturing, you are more than twice as likely to be involved in a major injury and more than three times as likely to have an injury resulting in three days or more off work.

If you are an employer, this means you are likely to incur higher costs through lost production time, injury-related absence, damage to property, civil claims, and so on.

Scope of this guidance

This guidance is based on reports from employers whose main activity is coded to Standard Industrial Classification (1980) 4130. This covers liquid milk, and dairy products such as cheese and yoghurt.

The analysis was confined to injuries reported to the employees of dairy industry companies during a typical year (1991-1992), and includes accidents involving employees off site, such as employees in milk delivery and tanker drivers. It excludes accidents to visitors and contractors on site. Since 1991-92 there has been no significant change in the incidence rate.

Safety checklist

This checklist includes the most common situations which cause accidents, as well as a list of preventative measures.

Falls

- (a) eliminate the need to work at height, eg automatic sampling on milk tanks;

Table 1

Hazard	Relative importance	Significant factors
Handling	31% of all injuries.	46% of injuries were due to lifting heavy weights. 25% were from sharp and 16% awkward to handle weights.
Slips and trips	22% of all reported injuries and also the largest single cause of major injuries (36%).	61% of those injuries with an identifiable cause reported were slips (predominantly on wet surfaces) and 35% were trips (with trips over obstructions twice as common as over uneven surfaces).
Struck by moving objects	10% of all injuries.	56% of injuries with an identifiable cause were from moving articles (eg falling objects) and 11% were caused by hand tools. Other causes included moving parts of vehicles, and assaults.
Exposure	7% of all injuries and also 12% of major injuries.	Almost all investigated injuries were related to exposure to cleaning fluids/fume. Splashing and uncontrolled releases of fluid/fume were common causes.
Falls	9% of all injuries and the 2nd highest cause of major injuries.	Falls from stairs and ladders accounted for almost 40% of these injuries. Falls from vehicles caused 15% of these injuries and 5% of all major injuries.
Striking against	7% of all injuries.	66% from hitting/walking into fixed objects and 33% from moving objects.
Machinery	5% of all injuries and also 5% of major injuries.	Conveyors were involved in 16% of investigated injuries.
Transport	5% of all injuries.	Fork lift trucks were involved in 50% of all investigated injuries of this type.

Note that these are the major identified causes of injury and that other accidents involved electrical shock, fire and structural collapse.

- (b) if you cannot avoid work above ground level, always provide a safe means of access, a safe working area and the correct equipment for the job;
- (c) do not work on or near fragile roofs or roof lights without assessing the job and making sure that a safe method of working has been prepared in advance;
- (d) check condition of stairways regularly.
- (d) after cleaning, dry floors as much as possible;
- (e) remove obstructions in walkways regularly;
- (f) maintain floors and stairs in a good condition.

Slips and trips

- (a) take measures to avoid spillage and leakage onto floors and walkways;
- (b) make sure a system for cleaning spillages is in place and that it is followed;
- (c) try to schedule floor cleaning when work is not in progress or has finished for the day;

Exposure

- (a) train and supervise people in the safe use and storage of chemicals and steam;
- (b) provide a safe system for preparing, using and handling chemicals in the workplace;
- (c) maintain steam equipment, including joints and valves and lag steam pipes;
- (d) avoid carrying chemicals where there is a risk of spillage or splashing - do not carry chemicals in open topped containers;
- (e) provide suitable protective equipment and make sure that people are trained to use it correctly.

Machinery

- (a) make sure that guards are kept in place and are properly maintained;
- (b) set up a regular examination procedure for checking the integrity of guards, and keep records of these checks;
- (c) do not use machinery with poor or defective guards and encourage people to report faults;
- (d) train employees and provide them with information about the hazards of the machinery they will use in the dairy industry.

Handling

- (a) eliminate unnecessary manual handling by assessing each job and providing a mechanical alternative where reasonably practicable;
- (b) avoid awkward or heavy lifting - box or enclose awkward shaped weights to provide an easier lift;
- (c) provide training to employees in the correct lifting techniques to use.

Transport

- (a) ensure that fork lift truck drivers are trained and certified as competent;
- (b) segregate pedestrian and vehicular traffic where possible;
- (c) eliminate the need to reverse vehicles and where this is not possible set up a safe system for reversing.

Useful information

- 1 A recipe for safety: Health and safety in the food industry TOP05(rev1) HSE Books 1994 ISBN 0 7176 2432 3 (available in priced packs of five)
- 2 An index of health and safety guidance for the food and drink industries FIS7(rev1) HSE Books 2001
- 3 BS 3441: 1995 Tanks for the transport of milk and liquid milk products (6.3 Access to manway)
- 4 DairyIndustry Code of Practice for the safeguarding of dairy machinery Information on bottle fillers (including integral cappers and crowners); D/Re - Crater; Conveyors; D-Stackers and Stackers; Cartoning Machinery; and Bottle Washers, 1992 Dairy Industry Federation

5 Look before you lift - a manual lifting and handling training video for the dairy industry. Dairy Industry Federation

6 Health and safety in retail and wholesale warehouses HSG76 HSE Books 1992 ISBN 0 11 885731 2

7 Essentials of health and safety at work HSE Books 1994 ISBN 0 7176 0716 X

8 Slips and trips: Guidance for the food processing industry HSG156 HSE Books 1996 ISBN 0 7176 0832 8

9 Seven steps to successful substitution of hazardous substances HSG110 HSE Books 1994 ISBN 0 7176 0695 3

10 A step by step guide to COSHH assessment HSG97 HSE Books 1993 ISBN 0 7176 1446 8

11 Manual handling: Solutions you can handle HSG115 HSE Books 1994 ISBN 0 7176 0693 7

12 Reversing vehicles INDG148 HSE Books 1993

13 Safety in working with lift trucks HSG6 (Second edition) HSE Books 2000 ISBN 0 7176 1781 5

14 Workplace transport safety: Guidance for employers HSG136 HSE Books 1995 ISBN 0 7176 0935 9

15 Safe management of ammonia refrigeration systems: Food and other workplaces PM81 HSE Books 1995 ISBN 0 7176 1066 7

16 Preventing falls from height in the food and drink industries FIS30 HSE Books 2001

17 Workroom temperatures in places where food is handled FIS3 HSE Books 1994

18 Controlling exposure to disinfectants used in the food and drink industries FIS29 HSE Books 2001

19 Reducing noise exposure in the food and drink industries FIS32 HSE Books 2002

20 Management Matters The DIF magazine which frequently contains information on current health and safety issues

Dairy Industry Federation publications are available from the Dairy Industry Federation, 19 Cornwall Terrace, London NW1 4QP Tel: 020 7486 7244.

British Standards are available from BSI Customer Services, 389 Chiswick High Road, London W4 4AL. Tel: 020 8996 9001 Fax: 020 8996 7001.

HSE priced and free publications are available by mail order from HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA Tel: 01787 881165 Fax: 01787 313995 Website: www.hsebooks.co.uk (HSE priced publications are also available from bookshops.)

For information about health and safety ring HSE's InfoLine Tel: 08701 545500 Fax: 02920 859260 e-mail: hseinformationservices@natbrit.com or write to HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG. You can also visit HSE's website: www.hse.gov.uk

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 publication may be freely reproduced except for advertising, endorsement or commercial purposes. First published 12/96. Please acknowledge the source as HSE.