Safety and health in bakeries

The purpose of this bulletin is to provide information for employers, apprentices, employees and managers to identify risks and suggest possible control measures to assist bakeries in meeting their obligation under the Act.

What the law says

Working safely

Employers have a responsibility under *Occupational Safety and Health Act 1984* (the Act) to provide and maintain a safe working environment in which employees are not exposed to hazards. This responsibility includes providing information, instruction, training and supervision so that workers are not exposed to hazards. It also includes addressing any health risks such as occupational asthma that could arise at the workplace. Additionally, employers are required to consult with safety and health representatives (if any) and employees on safety and health matters.

Employees have a responsibility under the Act to take reasonable care for their own safety and health and that of others.

The risk management process

The Occupational Safety and Health Regulations 1996 (Regulation 3.1) require employers to carry out a risk management process at the workplace. This involves a three-step process to:

1. identify hazards;
2. assess the risks; and
3. control risks.

The third step in the risk management process is to implement control measures to eliminate or reduce the risks from hazards. An additional step is to ensure the measures are monitored and reviewed on an ongoing basis to check that they are working.

Manual handling in bakeries

Manual handling related injuries account for more than half of the total lost time injuries/diseases in the bakery industry. Most of the injuries occur when lifting, handling or reaching and most commonly result in sprains and strains of muscles and joints.

The Commission for Occupational Safety and Health Code of practice: Manual tasks outlines a three-step approach to control manual handling risks:

1. Identify all hazards associated with manual handling by looking at:
    - actions/postures;
    - load;
    - work environment and layout;
    - work organisation; and
    - skills and experience of workers.
2. Assess the risk arising from the hazards.
3. Decide on and use appropriate control measures.

WorkSafe Bulletin

Manual handling hazards and possible controls

Actions and postures

Reaching above shoulder height

Many bakeries require workers to carry out manual handling tasks above shoulder height and below knee height where baking trays, flour and other stored items are kept. When reaching for items above shoulder height, the back is arched and the arms act as long levers, making the load difficult to control and significantly increasing the risk of injuries such as falls, sprains or strains.

Heavier items and more frequently used items should be stored between knee and chest height. If this is not practical, workers should be provided with adequate means to retrieve and place items in storage areas without lifting above head/shoulder height.

Bending forward to pick up low level loads

Bending forward to pick up loads from a low level may cause strains, particularly to the lower back. To reduce the risk of injury, review storage systems in the bakery.

Holding load away from trunk

The risk of injury increases, as the load or arms are held further away from the front of the body. This is most evident when workers reach into display cabinets and ovens. Consideration should to be given to size and accessibility. For example, display cabinets are available with a side opening and completely removable doors. Using baskets in chest freezers will minimise the reaching involved.

Awkward and static postures while working at workbenches and sinks

Awkward and static postures are a hazard, especially when working at benches or sinks for long periods of time, and particularly if the surfaces have not been set at appropriate heights. Such tasks include scrubbing dishes in troughs that are too deep and preparing food at benches that are either too low or too high for the worker. It is not always practical or feasible to provide adjustable surfaces. Individuals can raise themselves up by standing on low, stable platforms to work at surfaces that are too high. Platforms on the floor should be placed in a position/area where they are not a trip hazard.

The load

Moving baking trays

Moving large baking trays and tins is a high-risk task. They may be heavy, bulky and often hot. Where practical, this task should be eliminated by using trolleys or modifying the load by using smaller trays. When removing hot trays from the oven, long gauntlet gloves protect forearms.

Environment

Handling stock

Many bakeries receive bulk deliveries of goods. Handling bulk deliveries is another high-risk task. Where possible, the deliveries should be placed near where they will be stored. If this is not practical, place the goods where they will not cause a slip, trip or fall hazard.

When placing stock into storage, heavier items and more frequently used items should be stored between knee and chest height. If that is not practical, workers should be provided with a stepladder or safety step to reduce reaching above shoulder height. Consideration should also be given to using bulk storage bins for products such as flour.

Stock levels should be managed to ensure there is adequate room to store items in shelving and storage areas.

Movement around workplace

The bakery should be designed for ease of movement, work flow and work activity.

Work organisation

Repetitive movement

Repetitive movements are associated with occupational overuse injuries. Where possible, repetitive tasks should be limited by having varied tasks, job rotation and frequent cycle breaks. There are many other risk factors associated with overuse injuries, such as constrained and/or awkward postures and forceful movements.

Duration of tasks

Long and unusual working hours may contribute to physical and mental fatigue. Duration of work periods and work rosters organised are two such factors which may be monitored and modified to reduce the risks associated with fatigue. For further information read the Code of practice: Working hours.

Work pace

Time constraints and increasing demands are potential risk factors for manual handling injuries and slips, trips and falls in the workplace. Workers may be pressured to work too quickly or carry/move increased loads to meet demand. Staff numbers and rostering relative to work demands should be monitored and modified accordingly to reduce such risks.

Reducing other manual handling hazards

Where possible, eliminate or minimise manual handling by using appropriate equipment, such as suitable trolleys.

The workplace needs to be kept tidy to minimise slip, trip and fall hazards.

Workers should be made aware of manual handling risk factors and how to use the risk management approach to minimise such risks.

Slips trips and falls in bakeries

Identify slip, trip and fall hazards and possible controls

Slips, trips and falls are among the most common hazards in the bakery industry. Most of the injuries occur from falls on the same level and are due to slippery floors and obstructions resulting in fractures, sprains, bruises and cuts.

Slippery floors

In the bakery industry, floors with flour and/or water spills are the greatest cause of slip, trip and fall injuries. There are several simple ways of minimising the risk of slips and falls.

Minimising spills by design

Sinks and troughs should be designed to avoid water dripping onto the floor.

Environmental design

Install non-slip floor surfaces:

- non-slip tiles - especially in areas easily contaminated by flour and water;
- floor treatments;
- non-slip mats; and
- drainage in wet areas.

Administrative controls
Cleaning floors - effective scheduling and adequate frequency.

Transporting fluids - where mechanical aids are not practical, fluid should be transported in a suitable container, such as a bucket with sturdy handle and secure lid.

Appropriate footwear - to be used by workers.

Changes in floor levels

There are several simple ways of minimising the risk of trips and falls as a result of changes in floor levels. These include:

Elimination
Although it is not always practical to eliminate a change in floor levels in an existing bakery, as part of a redesign or refit, eliminating this risk factor would be the preferred control option.

Environmental design
Small ramps may be an effective way of graduating the change in floor levels, to reduce the risk.

Administrative controls
Bright markings and warning signs are examples of how changes in levels may be clearly indicated.

The risk of injury becomes much greater when changes in floor levels are combined with changes in surfaces, slippery floors or inadequate lighting and manual handling tasks. This risk can be controlled by ensuring that the lighting is good and the floor levels have non-slip tiles and non-slip mats. These areas should be kept clear of fluids or any obstruction that might cause a person to slip, trip or fall.

Obstructions

There are several simple ways of minimising the risk of trips and falls as a result of obstructions. These include controls such as:

Environmental design
Providing appropriate storage design and space:

- where possible, items and equipment should be stored in appropriate storage areas and not blocking walkways, emergency exits or restricting access to other items; and
- workflow should be considered when designing the access to storage areas.

Housekeeping
Make sure:

- items such as flattened cardboard boxes are not used as floor mats, as they are a slip, trip and fall hazard;
- walkways are kept clear of obstacles, especially during peak work times; and
- waste/rubbish is removed regularly from work areas.

Reducing other slip, trip and fall hazards

Make sure:

- a regular cleaning procedure is in place to keep floors clean of spilt water, oil and flour;
- lighting levels are adequate; and
- signs are visible to warn employees and customers of slippery floors.

Watch out for flour dust

Frequently breathing in flour dust may lead to occupational asthma. Minimising flour dust in the air can reduce the health risk.

Health problems from baking flour dust

Breathing in flour dust frequently at work can lead to some people developing a health condition known as occupational asthma. This condition can cause long-term or life-long health problems.

What is occupational asthma?

Asthma is a condition of the lungs where the airways to the lungs narrow and cause coughing, chest tightness, wheezing and shortness of breath. The cause is unknown but it often starts or is made worse because of a number of factors in the environment.

Occupational asthma develops when a person becomes very sensitive to a specific substance, such as flour dust, which they frequently breathe in at the workplace.

In the baking industry, dust from baking flour is a factor in the environment that may cause occupational asthma in some workers.

Ways to reduce the risks of occupational asthma

When baking flour dust is identified as a potential hazard at the workplace, the ways to reduce the potential health risks for workers include:

- installing and maintaining good ventilation and exhaust systems;
- training staff in work practices that help to reduce the amount of baking flour dust in the air; and
- providing Class P1 disposable masks that comply with Australian/New Zealand Standard, AS/NZS 1716 (compliance should be indicated on the packaging for the mask) and instructing staff to wear the masks when an activity or accident results in clouds of visible dust.

Work practices to reduce the amount of flour dust in the air include:

- gently tipping and shaking bags;
- sprinkling flour instead of throwing it;
- placing ingredients into the flour instead of dropping them;
- rolling flour bags from the bottom when tipping, to avoid having to fold them when disposing; and
- starting the mixer on a slow speed until wet and dry ingredients are combined.

How to recognise the symptoms of occupational asthma

There is a period from several weeks to many years when there are no symptoms. When the symptoms start developing:

- a runny nose at work is common at the beginning;
- after a variable period of time, coughing, chest tightness, shortness of breath and wheezing develop, which occur more often and worsen until there is a pattern of taking sick leave because of the symptoms. Coughing may be the most noticeable symptom. Breathlessness and wheezing are uncommon symptoms;

- sometimes the symptoms will develop within a few minutes to an hour of breathing in the flour dust. More often, the symptoms do not develop for four to eight hours after being at work and get worse after work or during the night;
- some people may only suffer night time attacks of coughing and other symptoms, which wake them during the night; and
- in the early stages, the symptoms are mild early in the week, worsen towards the end of the week, and improve over the weekend.

Take action

If you suspect you have symptoms of occupational asthma, or you have a condition that might increase sensitivity to flour dust, talk to your employer, a safety and health representative (if there is one at work), a union representative, if you are a member, and/or your doctor.

If the cause of occupational asthma is not recognised, or you continue to work while suffering symptoms, there is a risk that the asthma will continue, even after leaving the job.

More information

Further information on the manual handling risk management process can be found in the:

- Code of practice: Manual tasks
- Slips, trips and falls in the cafe and restaurant industry - Bulletin
- Manual handling in the café and restaurant industry - Bulletin.
- Food preparation mixer guarding – Bulletin
- Occupational Safety and Health Regulations 1996 have specific requirements regarding:
    - Movement around workplaces – Regulation 3.6
    - Warning signs – Regulation 3.11
    - Lighting – Regulation 3.13
    - Surfaces and floors – Regulation 3.18

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