Food Handling Skills and Knowledge

All food businesses must ensure that persons undertaking or supervising food handling operations have:

(a) skills in food safety and food hygiene matters; and
(b) knowledge of food safety and food hygiene matters,

commensurate with their work activities.

In relation to skill, a food handler or supervisor of a food handler must have the ability to perform those tasks that are necessary to ensure the safety of the food being handled.

In relation to knowledge, a food handler or the supervisor of a food handler must have an understanding of the issues relating to and the principals surrounding food safety and food hygiene matters.

This requirement specifies that skills and knowledge are only required to a level that corresponds with the work activities of the food handler. The skills and knowledge required of a cook will be different from those of a waitress or a cleaner.

Skills and knowledge must be in both food safety and food hygiene matters.

There are many approaches that a food business can adopt in order to ensure that food handlers obtain the skills and knowledge required to produce safe food. Examples include:-

- in house training by business employees or the proprietor
- distribution of relevant documentation to employees
- having operating procedures in place that clarify the responsibilities of
- food handlers and supervisors
- attendance at food safety courses run by local Council's or other bodies, such as industry associations.
- Hiring a consultant to present a course to business employees; and
- Formal training courses.

Food handlers are not required to undertake formal training in order to comply with the skills and knowledge requirement. The requirement states only that food handlers must have the appropriate skills and knowledge but does not specify how this is to be achieved.

Prior to operation of your business, you should discuss this requirement with your local Environmental Health Officer. This requirement must be complied with prior to opening up of your food business.

Notification

A food business must, before the business commences any food handling operations, notify the appropriate enforcement agency of the following information:

(a) contact details for the food business including the name of the food business and the name and business address of the proprietor of the food business;
(b) the nature of the food business; and
(c) the location of all food premises of the food business that are within the jurisdiction of the enforcement agency.

The proprietor of the food business must answer all questions asked by the local authority in relation to the above matters in the form attached. **The food business must notify the local authority of any proposed change to the information above before the change occurs.**

Food Receipt

The food business must take all practical measures to ensure it only accepts food that is protected from the likelihood of contamination.

To satisfy this requirement, in relation to all food on the food premise, the food business should ensure they have the following information relating to all food on the food premises:

(a) the name and business address in Australia of the vendor, manufacturer,
(b) or packer or, in the case of food imported into Australia, the name, and
(c) business address in Australia of the importer; and
(d) the prescribed name or, if there is no prescribed name, the designation of the food.

A food business must when receiving potentially hazardous food, take all practical measures to ensure it only accepts potentially hazardous food that is at a temperature of;

(a) 5°C or below; or
(b) 60°C or above,

unless the food business transporting the food demonstrates that the temperature of the food, having regard to the time taken to transport the food, will not adversely affect the microbiological safety of the food.

A food business must, when receiving potentially hazardous food, take all practical measures to ensure that food which is intended to be received frozen, is frozen when it is accepted.

“Practical measures” has been included, to clarify that the food business cannot inspect every food item that comes into a food business nor categorically assess whether food items inspected are not contaminated. Measures that you may take as a food business are:-

(a) specifying to suppliers that steps are to be taken to protect food from contamination and wherever possible that food is delivered in packages or containers;
(b) ensuring wherever possible that food items are not delivered when there is no-one at the business to assess the items’,
(c) inspecting randomly selected food items from a delivery – the need for this may reduce if the food business has confidence in its suppliers.

Food Storage

A food business must, when storing food, store the food in such a way that:-

(a) it is protected from the likelihood of contamination;
(b) the environmental conditions under which it is stored will not adversely affect the safety of the food.

A food business must, when storing potentially hazardous food:

(a) store it under temperature control; and
(b) if it is food that is intended to be stored frozen, ensure the food remains frozen during storage.

During storage food can be protected from contamination in the following ways:

- food should be stored in food grade containers and covered if there is any likelihood of contamination,
- raw foods should be stored separately or away from ready to eat foods to avoid contamination from the raw food being transferred to the ready to eat food;
- storage areas should be kept clean to minimise the opportunity for dirt,
- food scraps etc, contaminating stored food;
- storage areas should be kept free of pests; and
- food containers should be stored off the floor.

Food businesses should be guided by specifications provided by food manufacturers as to how food should be stored to retain its safety or suitability.

Potentially hazardous food must be stored at a temperature that will minimise the growth of food poisoning bacteria in the food for the time that the food is being stored. **This temperature must be at or below 5°C or at or above 60°C unless the business can demonstrate that maintaining stored food between these temperatures (5°C and 60°C) will not adversely affect the micriobiological safety of the food.**

As a guide potentially hazardous food that is stored at 5°C should be sold or discarded within seven (7) days.

Food Processing

A food business must:

(a) take all practicable measures to process only safe and suitable food; and
(b) when processing food:

(i) take all necessary steps to prevent the likelihood of food being contaminated; and
(ii) where a process step is needed to reduce to safe levels any pathogens that may be present in the food – use a process step that is reasonably known to achieve the microbiological safety of the food.

Some necessary steps referred to in (i) include:

- not contaminating ready to eat food with raw food by ensuring that utensils used to prepare raw food are not used to prepare ready to eat food unless they have been cleaned, sanitised and dried;
- minimising contamination from food handlers,
- using clean, dry equipment that is in good working order to process food;
- ensuring chemicals are kept separate from food processing areas
- minimising the likelihood of contamination from the areas where the food is being processed including contamination from dirt and dust, pests and foreign objects such as glass and metal; and
- not mixing different batches of food, to avoid transferring contamination from one batch of food to another.

A food business must, when processing potentially hazardous food that is not undergoing a pathogen control step, ensure that the time the food remains at temperatures that permit the growth of infectious or toxigenis micro-organisms in the food is minimised.

A food business must, when cooling cooked potentially hazardous food, cool the food:

(a) within two hours - from 60°C to 21°C; and
(b) within a further four hours - from 21°C to 5°C,

unless the food business demonstrates that the cooling process used will not adversely affect the microbiological safety of the food.

A food business should use a probe thermometer to monitor how quickly food is being cooled.

Note - Generally, cooked food which is to be cooled from 60°C to 5°C cannot be possible without refrigeration.

A food business must, when reheating previously cooked and cooled potentially hazardous food to hold it hot, use a heat process that rapidly heats the food to a temperature of 60°C or above, unless the food business demonstrates that the heating process used will not adversely affect the microbiological safety of the food.

Thawing

Processing includes thawing and businesses will need to ensure that, when frozen potentially hazardous foods are thawed, the food is kept for a minimum time at temperatures that support the growth of food borne pathogens.

There are a number of ways that potentially hazardous food can be thawed. For example, refrigerator, microwave, running water and room temperature. Thawing frozen potentially hazardous food may pose a food safety risk if the temperature of the food is between 5°C and 60°C during thawing, allowing food poisoning bacteria to grow.

The food safety risk is much higher for frozen ready-to-eat potentially hazardous food being thawed than for raw potentially hazardous foods that will be cooked or otherwise processed to make them safe before eating. Ready-to-eat frozen potentially hazardous foods should be thawed in a refrigerator operating at 5°C or below, or alternatively in a microwave. If these foods are thawed at room temperature, food processing bacteria may grow in the food and, as the food will not undergo any further processing (such as cooking) before it is eaten, the bacteria will not be destroyed.

Food Display

Food on display for sale or service must be:

- protected from contamination; and
- for potentially hazardous food, either maintained at temperatures that minimise the growth of pathogenic micro-organisms or displayed for a time that does not allow dangerous levels of pathogens to grow.

Foods for self service must be:

- effectively supervised so that any food that is contaminated by a customer or is likely to have been so contaminated is removed from display without delay,
- provide separate serving utensils for each food or other dispensing methods that minimise the likelihood of the food being contaminated,
- provide protective barriers that minimise the likelihood of contaminated by customers.

Food Packing

A food business must, when packaging food:

- only use packaging material that is fit for its intended use,
- only use material that is not likely to cause food contamination,
- ensure that there is no likelihood that the food may become contaminated during the packaging process.

During packaging the food may be exposed to contamination from:

- the packaging equipment itself, for example the equipment may be dirty or a part of the equipment such as machinery oil or grease may contaminate the food.
- foreign matter such as dirt, dust, insects.

Food Disposal

A food business must ensure that food that is recalled, returned or is suspected of being unsafe and/or unsuitable is held, separated and identified from other food until it is:

- destroyed.
- used for purposes other than human consumption;
- returned to its supplier;
- further processed in a way that ensures its safety and suitability; or
- ascertained to be safe and suitable.

A food business must clearly identify any food that is held and kept separate as returned food, recalled food, or food that is or may not be safe or suitable, as the case may be.

Food Recall

A food business engaged in the wholesale supply, manufacturer or importation of food must have in place a system to ensure the recall of unsafe food.

- If the food is intended for immediate consumption, no recall system is necessary.
- A retail food business (restaurant, takeaway, supermarket) is not required to have a recall system unless it is also a food manufacturer, importer or wholesaler.

Manufacturers, wholesalers and importers need to maintain up to date lists of the businesses to which they supply their products, as well as which batches of product have gone where. The business must be able to identify which states, territories and, where relevant, other countries receive the product it will narrow the scope of the recall.

The following information must be provided to businesses or persons who have the product:

- the name of the product and the batch code or date mark covered by the recall,
- why the food is being recalled,
- where to return unsold food, and
- who to contact in the company for further information.

The business recalling the food should tell the business that receives returned food that is subject to a recall how it should dispose of the food. Any business that has food returned to it as part of a recall must comply with the disposal requirements of the food safety standards.

The recall system must be documented in written form and available to an authorised officer on request.

Food Premises and Equipment

The objective of this standard is to ensure that, where possible, the layout of the premises minimises opportunities for food contamination. Food businesses are required to ensure that their food premises, fixtures, fittings and equipment are designed and constructed to be cleaned and, where necessary, sanitised. Businesses must ensure that the premises are provided with the necessary services of water, waste disposal, light, ventilation, cleaning and personal hygiene facilities, storage space and access to toilets.

General

Described below are some of the factors that help make premises suitable for handling food. The list is not exhaustive and it is important that assessment takes into account the particular food operations taking place on the premises.

Layout

Food contamination can be minimised by physically separating some areas.

Wash up areas and staff amenity areas should be separated from areas where food is prepared.

Layout of the premises can also affect the ease of keeping a premise clean. It is beneficial if storage rooms for cleaning equipment are close to the areas where the equipment is used.

Where possible, staff entrances, amenity rooms, change rooms, and personal hygiene facilities should be located so that staff do not have to cross food preparation areas.

Materials

Should be durable under the conditions they are being used for and able to withstand cleaning chemicals. They must be appropriate for food operations.

Standard of Workmanship

Standards of workmanship must be high in food preparation premises. For example, rough grouting between tiles, tiles laid unevenly or roughly finished rendering are not acceptable.

Adequate space must be provided for the activities to be conducted on the food premises and for the fixtures, fittings and equipment used for those activities.

Adequate space must be provided for activities such as, storing packaging materials and chemicals, providing access for delivery and garbage vehicles, storing garbage and recyclable material, for equipment such as sinks, hand wash basins, stoves, food-processing equipment, refrigerators, freezers, garbage containers and hot water services. Space is also needed for food storage, ingredients, finished product storage, packing materials, cutlery, crockery and cooking utensils.

It is difficult to determine space requirements at the design stage unless the business can estimate the volume of trade accurately. Factors that could be considered in establishing weather there is sufficient space are as follows:

- Adequate space to permit a work flow that will separate food handling areas to prevent cross-contamination between food handled in one area and food in another.
- Chilled, hot and dry goods storage space for ingredients, raw materials and final products.
- Storage space for recalled product and other product kept separate from product for sale.
- If a thawing sink is proposed, adequate space for other sinks must be available.
- Staff numbers and protective clothing requirements – to access changing room space.
- Quantity and type of garbage and recyclable material produced. – to access garbage storage area requirements.
- Water requirements – to assess any requirements for hot water storage.
- Sewage disposal – whether on site storage and/ or disposal is necessary.

Cleaning and Sanitising

The food business must maintain the premises to a standard of cleanliness where there is no accumulation of garbage or recycled matter (except in containers), food waste, dirt, grease or other visible matter.

Businesses will have to ensure that the surfaces they sanitise are designed and constructed to withstand the effects of sanitising hot water or chemicals.

Water Supply

- Food businesses must have an adequate supply of potable water.
- Warm water is required for hand washing facilities and for washing equipment.
- A hot water system will be needed to achieve the temperature requirements of the standards.

Sewage and Waste Water Disposal

Approval must be obtained from the water corporation for disposal of effluent to sewer. A grease trap is usually required. If sewer is not available, a septic tank application must be submitted to the Local Council. A site assessment will be needed to ensure that the proposed property is suitable for that particular effluent disposal.

Storage of Garbage and Recyclable Matter

Food premises must have the facilities for the storage of garbage and recyclable matter that:

(a) adequately contains the volume and type of garbage and recyclable matter on the food premises,
(b) encloses the garbage or recyclable matter, if this is necessary to keep pests and animals away from it;
(c) are designed and constructed so that they are easily and effectively cleaned.

The outside area or room must be adequate for the volume and types of waste.

There is no requirement to use refrigerated garbage rooms although this may be necessary for some businesses to prevent putrification and odour problems.

Bins / containers within open air storage areas must have tight fitting lids in order to keep flies and other pests away. If premises have a garbage room, the floors, walls and ceiling must comply with the requirements of the standards. They must be designed and constructed in a way that enables them to be cleaned. For example, floors may need to be graded and fall to a floor waste if the room is hosed to clean it.

Garbage rooms are part of the premises and therefore have to comply with the requirements for sufficient ventilation and lighting.

Ventilation

Food premises must have sufficient natural or mechanical ventilation to effectively remove fumes, smoke, steam and vapours from the food premises.

Premises must meet the natural and / or mechanical ventilation requirements in the Building Code of Australia. Under the BCA, premises must be provided with means of ventilation with outdoor air which will maintain adequate air quality. If the air is provided through a mechanical air handling system, the system must control the circulation of objectionable odours and the accumulation of harmful contamination by micro-organisms, pathogens and toxins.

In a commercial kitchen, an exhaust hood that complies with Australian Standard 1668, Parts 1 and 2 will satisfy the BCA requirements. The provisions have regard to room sizes and apply to hoods over cooking apparatuses which have power inputs above specified levels. Where the equipment is outside the specifications, mechanical ventilation systems meeting the general requirements of the Australian Standard are deemed to comply with the BCA.

Natural Ventilation will only be suitable in premises where there is little or no cooking that generates steam or greasy air.

Guidance on the design and installation of mechanical ventilation systems may be found in Australian Standard 1668.2. The use of mechanical ventilation and air–conditioning in buildings Part 2 Mechanical ventilation for acceptable indoor air quality.

In judging whether or not a ventilation system is sufficient and effective, regard should be paid to the types of operations being carried out. Some suggested criteria follow:-

- do the food operations or other activities (such as cleaning) produce fumes, smoke, steam or any vapours?
- are air intakes and intakes for ‘ make up air’ located so that they provide ‘fresh’ air uncontaminated by fumes, smoke, etc?
- does the system draw air into ‘clean’ preparation rooms from areas of the premises where operations generate dust or airborne microbiological contamination that could cause contamination problems?

Lighting

Food premises must have a lighting system that provides sufficient natural or artificial light for the activities conducted on the food premises.

Australian Standard 1680 Part 1 – 1990 Interior lighting: general principals and recommendations and AS/NZ 1680.2.4 1997: Industrial tasks and processes provide comprehensive information on interior lighting. These standards set out recommendations for ‘good seeing conditions’ in buildings by means of appropriate lighting and interior colour treatment.

Australian Standard 1680 contains recommended maintenance illuminances for various types of tasks. Examples of minimum maintenance levels:

Activity	Level of illuminance (lux)
Food and equipment storage areas	110 – 150
Retail, dishwashing, hand-washing, toilet areas	200 – 300
At food preparation areas	500
For reading inspection and monitoring equipment (by provision of local lighting)	600 – 1200

Floors, Walls and Ceilings

The requirements for floors, walls and ceilings apply to the floors, walls and ceilings of all areas used for food handling, cleaning, sanitising and personal hygiene except the following areas, dining areas, drinking areas and other areas to which members of the public usually have access.

Floors

In areas such as kitchens, storerooms, coolrooms and to external areas where food is handled, for example, loading docks. It also applies to areas used for washing and cleaning equipment and utensils, and to toilet and other personal hygiene areas, provided there is no public access.

Floors must be constructed so as to be appropriate for the activities conducted. In deciding whether or not the floor is appropriate, consideration should be given to food safety factors such as:

- the type of materials (food scraps, oil and grease, water, chemicals) that could be spilt on the floor and need to be removed through cleaning, cleaning methods and materials available to the business; and
- whether the floor is of sufficient durability to withstand the type of cleaning operations used and degree of wear and tear occurring during food handling or other activities in the area.

Examples of floors that meet the criteria include glazed tiles, flush epoxy grouting, sheet vinyl and epoxy resin.

Coving

Coving should be provided in new premises in areas where floors are intended to be or likely to be cleaned by flushing with water. It may also help cleaning where the floor has to be frequently swept. Installing coving at floor-wall junctions behind stoves and food preparation benches may make these difficult to access areas easier to keep clean.

Use of carpet, mats, and ductboards:

Carpet and other absorbent matting are not capable of being effectively cleaned and are therefore unsuitable in any food preparation, storage or wet area.

Floors flushed with water or hosed down must be graded and a floor waste (drain or gully) installed so that the water drains to a drainage system. However, if the floor is dry cleaned, a wet vacuum cleaner is used or the floor is wet mopped and the mop removes remaining water, there is no need for a floor waste provided the floor is even.

Walls and Ceilings

Must be appropriate for the types of activities that is taking place on the premises.

Criteria for judging whether or not the wall and ceiling design and construction are appropriate include:

- the food handling activities taking place in the area - whether the surfaces are subject to splash or soiling,
- the likelihood of materials, such as paint flakes, contaminating food,
- whether food will come into contact with wall surfaces,
- A need to withstand heat from cooking processes and impact from equipment,
- Cleaning methods - whether they are wet or dry,
- Ease of cleaning, particularly if the surface is broken by access panels, window sills, etc.

Walls and ceilings are likely to be needed to protect the safety and / or suitability of the food where:

- unprotected (unpackaged) food is handled or stored and could be contaminated by dust, dirt or other airborne material; and/or
- packaged food could be damaged by the weather, dust, dirt or pests.

The junction between walls and between walls and ceilings must be tightly joined to provide a seal to prevent dust, dirt and pests such as cockroaches accessing the food area.

As a general rule, drop in panel ceilings should not be installed in food preparation areas in new premises because they are very difficult to seal.

The walls must be impervious to grease, food particles and water. Wall surfaces in kitchens and other processing areas must be finished with materials such as ceramic tiling, vinyl sheeting or stainless steel. Other materials such as steel trowelled concrete or cement render, coated or sealed to be impervious, may be appropriate.

Fixtures, Fittings and Equipment

Fixtures and fittings - benches, shelves, sinks, washbasins and cupboards, light fittings, garbage chutes, conveyors and ventilation ducts.

Equipment - includes all equipment used in handling food and in cleaning such equipment. It includes refrigeration motors and associated equipment and monitoring equipment.