safe

INFORMATION FOR THE

Safe Design of Commercial Kitchens

Hospitality Industry

SAFER INDUSTRIES

Supported by Government of South Australia

WorkCover CORPORATION

Introduction

Welcome to Information for the Safe Design of Commercial Kitchens. This booklet has been written in conjunction with the University of South Australia to provide the hospitality industry (including managers, proprietors, designers and commercial kitchen users) with recommendations for implementing efficient, safe and best practice for the hospitality industry. Within each section are precautions, processes and recommendations that contribute to the efficient running of a commercial kitchen, whether it is for small, medium or large premises.

The guidelines can be used when designing new kitchens or renovating existing commercial premises.

They present the hospitality industry with standards and recommendations that will contribute to safe and efficient production of uncontaminated food.

They are guidelines only. For further details refer to the reference material included in each section.

The design of new commercial kitchens and changes made to existing commercial kitchens must comply with current legislation including the Building Code of Australia, the Occupational Health, Safety and Welfare Act (SA) 1986 and the Occupational Health, Safety and Welfare Regulations (1995).

Other documents referred to in this booklet such as Codes of Practice and Australian Standards provide practical guidance on how to comply with the legal requirements of specific acts and regulations.

Angelo Mignanelli

Chair, Hospitality Industry
Occupational Health and Safety Committee

Acknowledgements

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Adelaide Convention Centre
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Churchill Court Aged Care Home
Criterion Hotel
Flinders Medical Centre
Magill Estate
Regency Hotel School
Renmark Golf and Country Club
The Marina Bistro

Users Guide

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List of the topics within each section that displays where each topic can be located. i.e.

Numbering system

The page number is located on the outside top of the 'cross-hair' and in bold type. The section number is located on the inside bottom of the 'cross-hair' and in light type. i.e.

Facing Pages

Page 10
Section 1

Page 11
Section 1

Colour system

A colour system has been created to help navigate through this booklet. 16 colours correspond to the 16 sections.

Glossary

Can be found at the start of most sections.

Spot references

Throughout this booklet coloured spots are used to flag relevant codes and standards. i.e.

Draft of Design, Construction and Fit Out of Food Premises:

This diagram contains
Colour coded spot
Name of code or standard
Number of code or standard
Description of code or standard

References

Australian Food Standards

AFS 3.2 Food Preparation
AFS 3.2.1 Food Safety Programs
AFS 3.2.2 Food Safety Practices and General Requirements
AFS 3.2.3 Food Premises and Equipment
AFS/NZFS 322, 5.14 Handwashing Facilities

Australian Standards

AS 1221-1997 Fire Hose Reels
AS1319-1994 Safety signs for the occupational environment
AS1428.1-2001 Design for access and mobility
AS 1668.1-1998 & 1668.2-2002 The use of ventilation and air conditioning in buildings
AS 1670.1-1995 Fire detection, warning, control and intercom systems
AS 1680.2.0-1990 Interior lighting
AS2220.2-1989 Emergency Warning and intercommunication systems in buildings
AS1851.1-1995 Maintenance of Fire Protection Equipment
AS2118.1-1999 Automatic fire sprinkler systems
AS 2293.1-1998 Emergency evacuation and lighting for buildings
AS 2293.3-1995 Emergency evacuation lighting for buildings
AS 2444-2001 Portable fire extinguishers and fire blankets
AS 3500.1.1-1998 National plumbing and drainage
AS 3500.2.1 -1996 National Plumbing and Drainage Standard
AS 3504-1995 Fire Blankets
AS3661.1-1993 Slip resistance of pedestrian surfaces
AS3745-2002 Emergency control organisation and procedures for buildings, structures and workplace selection and location
AS 3958.1-1991 Ceramic tiles
AS 4709-2001 Guide to cleaning and sanitising of plant and equipment in the food industry
AS DR01314 Draft for Design, Construction and Fit Out of Food Premises

Building Code of Australia

Volume 1, Class 2 to Class 9 Buildings

References

Occupational Health, Safety and Welfare Act

Occupational Health, Safety and Welfare Act, 1986

Occupational Health, Safety and Welfare Regulations

Occupational Health, Safety and Welfare Regulations, 1995

Approved Code of Practice: Occupational Health and First Aid in the Workplace

South Australian Occupational Health and Safety Commission, 1991

AFS — Australian Food Standards

AS — Australian Standards

BCA — Building Code of Australia

OHSW — Occupational Health, Safety and Welfare Regulations, 1995

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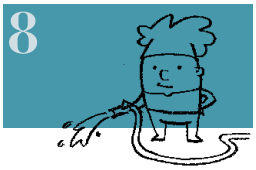


Contents

1

This section sets out criteria for the spatial planning of commercial kitchens. A well-planned kitchen will save time and effort in food preparation and assist to create a safe work environment.

Section 1
SPATIAL PLANNING

Glossary

A la carte: To order from a menu with set prices.

Bain-marie: A cooking vessel containing hot water into which another vessel is placed to heat its contents gently.

Banquet: Formal meal for a number of persons, all seated and served with the same meal at the same time.

Heat lamp: A lamp used to keep dishes hot while waiting to be collected by waiting staff.

1.1 Spatial requirements

A well planned kitchen should:

- provide adequate storage for raw materials
- provide adequate space for food being prepared
- provide adequate space food awaiting service
- provide adequate storage for equipment, utensils, crockery and cutlery
- be efficient and effective in terms of movement of staff, equipment, materials and waste
- provide an area for checking in stock.

To maintain effective movement through spaces, the area per person according to use of the equipment has been established by the Building Code of Australia. It is recommended that in a kitchen each person needs 10m^2.

1.2 Work flow

The premises shall be designed so that there is a continuous progression of food from delivery to storage, through to preparation and the finished product.

1.2.1 Food delivery or receiving

This includes the receiving of purchased goods, which involves: handling, checking, recording, unpacking or packing.

Some of these functions may be combined or not needed depending on the size of the kitchen.

1.2.2 Storage

The amount of storage space and the type of storage will depend on:

- the size of the kitchen
- the volume of business
- delivery frequency
- the length of storage
- the type of storage (frozen, refrigerated or dry).

Storage of meats and poultry should be separate from dry foods, vegetables, fruit and pastry. The area for vegetable preparation should be near the delivery door.

Ensure that all food is stored in the correct locations, covered and rotated so that the oldest food is at the front and therefore used first.

AFS 3.2.2

Food Safety Practices & General Requirements for storage and display of potentially hazardous foods

1.2.3 Preparation and cooking

The main preparation areas in food premises are for:

- meat preparation
- vegetable preparation
- fish preparation
- pastry/dessert preparation.

The raw meat preparation area should be separated from the cooked food handling area. If the kitchen is large, there could be a physical barrier between the two areas.

1.2.4 Clean crockery

Storage for clean crockery should be close to the washing up facility to minimise excess movement around the room.

1.2.5 Food service

The type of service (a la carte, fast food, café or banquet) will direct how the serving function is performed. The most common service is plate service, which requires pick-up points next to the cooking area. The pick-up point arrangement should consist of heating lamps or a bain-marie. Side dishes to the meal such as bread or butter, are usually located at waiter stations or in the cool room.

There should be a separate pick-up point for chilled food such as desserts. The pick-up point arrangement is critical for an efficient in and out flow of waiter traffic. The flow should avoid any cross-traffic or backtracking. Ensure that provisions are made for waiter traffic in the kitchen layout.

1.2.6 Waste food and dirty crockery

There should be an allocated space for the disposal of waste food and dirty crockery near the entrance to the dining room doors. A wash-up area or commercial dishwasher should be located adjacent to the area for dirty crockery. This ensures that there is a flow from the waiting staff bringing in dirty crockery, to the disposal of food and the washing of dirty crockery, with minimal movement around the room.

The following is a suggested list of possible cleaning/storing methods and equipment:

- collection benches for pots and crockery
- stainless steel racking for pots and pans
- stainless steel racking for plates
- stainless steel drawers for cutlery
- bench loading dishwasher with a capacity for 40 plates per 5 minute cycle

AFS 3.2.2

Food Safety Practices & General Requirements for storage and display of potentially hazardous foods

- large volume sinks
- plate rinse hose
- drainage grid on the floor
- exhaust fan
- waste disposal bin (differing bins for recyclables)
- glass racks
- dining room doors dividing the food preparation area from the washing-up/dishwasher area. There should be an allocated area to allow plates to be scraped immediately and put through the washing up area.

1.3 Provisions for adequate space

Space shall be provided on the premises for staff to handle food and perform other activities that are part of the food business.

Space should be provided for:

- food preparation and service
- separation of raw food preparation from cooked food preparation and other ready-to-eat food preparation areas
- washing and sanitizing operations for utensils and equipment
- separation of food storage and handling areas from areas for chemical storage, toilets, waste storage, office areas and other areas used for activities that could contaminate food or food preparation areas.

It is recommended that hand basins should be located at the staff entrances to areas where food is handled. Refer to Storage section 4 and Staff Amenities section 14.

1.4 Work space dimensions

It is recommended that provision be made for the following:

Clearances

- Up to 1200 mm clearance in front of storage areas with a sliding door.
- 1200 mm x 1200 mm clearance in front of other rooms with swinging or folding doors (e.g. dining room/servery doors).

Cupboards and shelves

- Sliding shelves under the kitchen counter and built-in oven.
- Insulate or build an enclosure around the pipes under the sink to avoid risk of burns while allowing for proper clearances.

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises

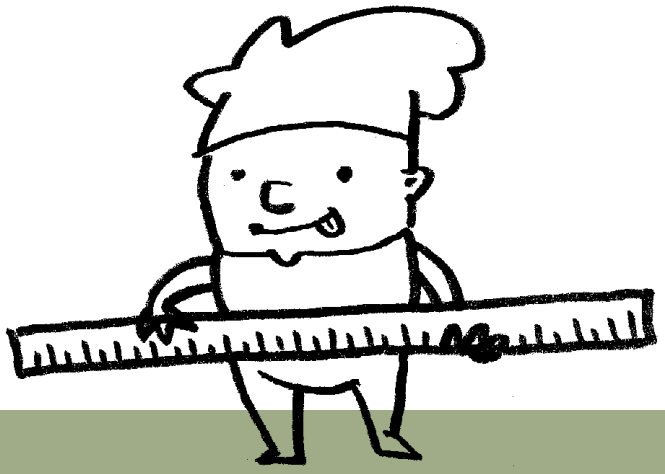
Stove and cook top

- Controls on the side or in front depending on the size of the oven.
- The standard 920 mm above floor level is recommended for the stove and positioning it near that part of the kitchen counter used for food preparation.
- Range hood equipped with an easy-to-reach control.
- Electrical outlets at least 400 mm above floor level.
- Kitchen counter electrical outlets 1050 mm above floor level.
- Ensure that all switches, thermostats, etc. are easy to activate with one hand.

Suggested layout

This is a suggested layout for a large kitchen serving a restaurant. The layout can be modified to suit small kitchens, pubs, and clubs or expanded to suit larger commercial kitchens.

The sink and preparation areas should not be too far apart and the fridge should be near the entrance to the kitchen. When renovating an existing kitchen, keep the existing service points in mind as rewiring and re-plumbing can be expensive. When planning a new kitchen, prioritise the position of the sink, preparation and cook top.



2

This section refers to the requirements for access and egress from commercial kitchens.

Section 2
ACCESS & EGRESS

Glossary

Egress: A way out

Exit: A doorway leading to a road or open space

Fire compartment: A part of a building separated from the remainder by barriers to fire such as walls and floors with an appropriate resistance to the spread of fire.

AS 1428.1

Design for Access and mobility – General requirements for access

2.1 Provision for escape

The design of any commercial kitchen must allow:

- safe and convenient movement about the workplace
- safe egress from the workplace in an emergency
- safe access to any part of the workplace.

BCA

Volume 1 Section D: Access and Egress

Provision must be made for safe routes out of the building in case of fire or other emergencies. It is important to ensure that these exits remain unobstructed and that the escape route is easy to pass through.

Where no point on the floor is more than 20m from an exit, only one exit is required, otherwise at least two exits are required. Where two or more exits are required, the distance between alternative exits must comply with section D of the Building Code of Australia.

OHSW

Division 2.1 Access and Egress

An exit must lead to a road or open space or to a fire compartment.

The unobstructed height of the path of travel to an exit must not be less than 2000mm.

The unobstructed width of the path of travel to an exit (except the actual doorway) must not be less than 1000mm.

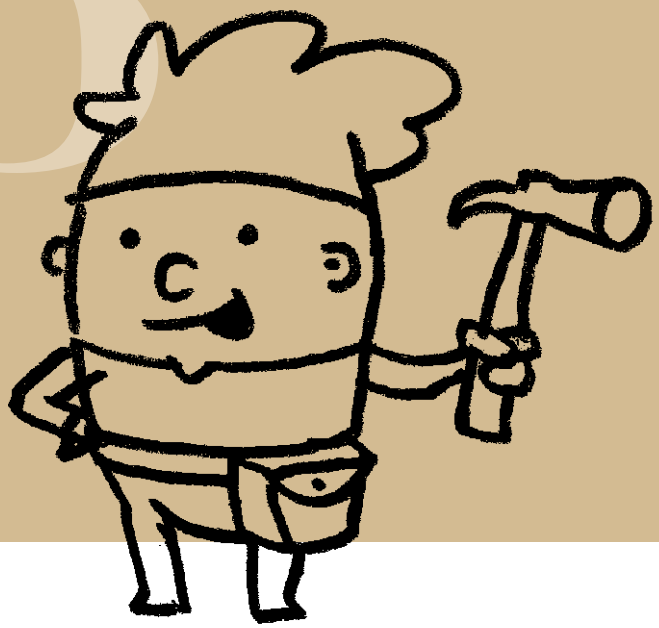
Suitable barriers should be put in place to prevent vehicles from blocking the exit, or access to it.

2.2 Access for people with disabilities

As far as is reasonable, a commercial kitchen should be designed to provide safe, equitable and dignified access to people with disabilities.

ACCESS & EGRESS

3



This section covers the installation, material, maintenance and cleaning of fixtures, fittings and equipment in commercial kitchens.

Commercial kitchens are required to provide adequate fixtures, fittings and equipment necessary for the production of safe and suitable food. Fixtures, fittings and equipment covered in this section are those items installed as part of the fit out, such as refrigerators, preparation benches, display units and shelving, and not loose utensils such as chopping boards, cutlery or mixing bowls.

Section 3
FIXTURES FITTINGS AND EQUIPMENT

Glossary

Installation: The process of being placed in position for service or use.

Process: The activity of preparing food for sale including chopping, cooking, drying, fermenting, heating, pasteurizing, thawing and washing, or a combination of these activities.

Utensil: Implement used for cooking.

AS/NZS DR01314
Draft for Design, Construction and Fit Out of Food Premises:

AFS 3.2.2
Food Safety Practices & General Requirements

AFS 3.2
Food Preparation

OHSW ACT
Section 19

OHSW
2.5.4 Provision of RCDs

3.1 General requirements

Fixtures, fittings and equipment within a food premises must be adequate for the safe production of food.

The operations of a kitchen require adequate fixtures, fittings and equipment for the following operations:

- serving food
- packaging
- transporting
- storing recalled food or food for disposal.

Depending on the activities undertaken, the following equipment may be required:

- cool rooms and refrigerators for chilled storage
- benches and work tables for preparation
- ovens, stoves and other such equipment for cooking
- hot boxes and ovens capable of holding food at 60°C or above (hot hold)
- display units that protect food from contamination and hold the food at 60°C or above (hot display)
- display units that protect food from contamination and hold the food at 5°C or below (chilled display)
- blast chillers that can reduce the temperature as specified in Australian Food Standards 3.2.2 and 3.2.
- portable RCDs (if electricity supply for movable equipment is not RCD protected)

3.2 Installation

The equipment must be installed so that it can be easily cleaned and to prevent any food from being contaminated.

All equipment must be:

- able to be easily moved for cleaning
- built into the walls, so it is completely enclosed to be vermin proof
- built against the wall or other equipment and the joints must be sealed.

3.3 Specific requirements

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises

AFS 3.2.2

Division 5.20 Cleaning & Sanitising of Specific Equipment

Refrigerated counters: (either a number of refrigerated cabinets or a frame in one piece), are required to have one continuous top of stainless steel, free of open or rough joints, cracks and crevices and rough surfaces.

Counters and bars, food display units, window displays and self-service display cabinets and bain-maries are required to have all surfaces (including internal surfaces) smooth, durable, impervious and free from cracks, crevices and cavities. Window displays for wet foods such as meat and fish are required to be covered at all intersections, and installed.

Cupboards and cabinets must have a smooth, washable finish for all surfaces.

Counters for food selection and/or preparation by the customer are required to have a protective barrier to provide a physical barrier between the customer and the food.

Dumb waiter (food conveyors) must have a smooth impervious surface, free of crevices and open joints. Vertical conveyors must have the wall of the shaft made from a smooth material, free of any crevices or cracks. Access must be provided for cleaning.

3.4 Materials

Surfaces in contact with food must be easily cleaned and sanitised, and not be able to absorb grease, food particles or water.

Stainless steel: suitable in direct contact with food. It is durable and can withstand chemicals. It is available in various grades which should be chosen based on the application.

Aluminium: can be used for cooking equipment, but must not come in contact with corrosive acids or alkalis.

Copper and alloys (brass and bronze): not suitable for general use or food contact unless coated with tin.

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises

Iron and mild steel: this material can corrode (although it can be partially prevented when painted) and should not be used where there is direct contact with food. Galvanized coatings are not recommended because zinc is toxic, and fruit acids and acidic and alkali detergents can corrode it.

AFS 3.2.2

Food Safety Practices & General Requirements

Timber products: should only be used if treated to be impervious to grease or moisture. Timber bench tops are suitable only in specific circumstances such as butchery and some bread-making operations.

Plastics: Plastic laminate and solid surface materials are suitable surfaces for food preparation. Surface texture should be chosen to ensure ease of cleaning.

OHSW

2.18 Workplace Cleanliness and Hygiene

3.5 Cleaning, sanitising and maintenance

A food business must maintain food premises to a high standard of cleanliness and ensure there is no accumulation of food waste, dirt, grease or other visible matter.

A clean and sanitary condition is the condition of a surface or utensil where it is clean, and has undergone application of heat and chemicals or other processes, so that the number of micro-organisms on the surface or utensil has been reduced to a level that does not compromise the safety of the food with which it may come into contact and does not permit the transmission of infectious disease.

3.5.1 Cleaning and sanitising of equipment

A food business is required to sanitise eating and drinking utensils and food contact surfaces that are likely to contaminate food.

A food premises is required to provide equipment for cleaning and sanitising as specified in the DR 01314.

Food premises selling pre-packaged food and drink and/or uncut fruit and vegetables only require a single bowl sink.

All other food premises require:

- double bowl sink
- dishwasher/glass washer and single bowl sink (where all the food contact equipment will fit in the dishwasher/glass washer)
- a double bowl sink and a dishwasher/glass washer (where some equipment has been washed/sanitised in the sink)

- a triple bowl sink may be required for sanitising where rinsing is required before and after sanitising (wash, rinse, sanitise procedure or wash, rinse/sanitise, rinse procedure)

AFS/ NZFS 322

Section 14: Hand Washing Facilities

3.5.2 Sinks

Sinks should be provided to suit the largest piece of equipment being cleaned. Larger pot sinks may be required to supplement standard sinks.

BCA

Volume 1 Section F2 Sanitary and Other Facilities

Sinks are required to have water at these temperatures:

- not less than 43°C for washing operations
- not less than 80°C for sanitising (only where sanitising takes place at the sink)

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises: 3.1.3 Hand Washing Facilities

Adequate space should be provided adjacent to sinks for holding, draining and drying.

3.5.3 Cleaner's sink

A cleaner's sink with hose connections should be provided for disposal of waste water (from floor washing etc)

3.5.4 Dishwashers and glass washers

The dishwasher and glass washer need to be able to wash and rinse in one continuous operation and dry rinsed utensils by the end of the cycle.

Temperatures for sanitising rinse should be:

A 80°C for 2mins
B 75°C for 10mins
C 70°C for 15mins

3.5.5. Hand basins

In addition to hand basins required in toilet areas, suitable hand basins must be provided in the kitchen. Basins should be within five metres of food preparation areas and be placed at all entrances to the kitchen where open food is handled, or where staff return to food handling areas.

Soap dispensers, paper towel dispensers and covered waste bins (for paper towels) should be located adjacent to the basin to promote cleanliness. The use of cloth towels for drying hands in a kitchen is not recommended because they harbour bacteria.

AS 4709 -2001

Guide to cleaning and sanitizing of plant and equipment in the food industry

3.5.6 Maintenance

All equipment must be regularly serviced to maintain it in good working order.

Refer to Australian Standard 4709-2001, Guide to cleaning and sanitising of plant and equipment in the food industry.

AFS 3.2.2

Food Safety Practices & General Requirements

3.6 Environmental considerations

To reduce energy consumption (and to save money on power bills) food premises should consider the following in the selection of fixtures, fittings and equipment:

OHSW

Division 2.5 Electrical

- select natural gas hot water appliances where possible, replace domestic ranges with Combi oven steamers whenever possible
- carry out programmed maintenance to ensure appliances operate at maximum efficiency
- if domestic appliances are used, ensure a high efficiency rating. For commercial refrigeration, refer to the National Appliance and Equipment Energy Efficiency Committee (NAEEEC) draft Minimum Energy Performance Standards (MEPS) for commercial, remote and self-contained refrigeration.

FIXTURES FITTINGS & EQUIPMENT

4

This section describes the storage areas that need to be provided for food items in a controlled environment, and to separate other items that may be the source of contamination of food, including chemicals, clothing and personal belongings.

Section 4
STORAGE

Glossary

Process: The activity of preparing food for sale including chopping, cooking, drying, fermenting, heating, pasteurising, thawing and washing, or a combination of these activities.

Ready-to-eat food: Food consumed in the same state as that in which it is sold and does not include nuts in the shell and whole, raw fruits and vegetables that are intended for hulling, peeling or washing by the consumer.

Section 4
STORAGE

AS/NZS DR01314
Draft for Design, Construction and Fit Out of Food Premises:

AFS 3.2.2
Food Safety Practices & General Requirements

AFS 3.2.3
Food Premises and Equipment

OHSW
Division 2.15 Storage

OHSW
Division 4.1 General Hazardous Substances

4.1 Storage requirements

The need for separate storage rooms will depend on the scale of the kitchen, however, consideration should be given to specific storage needs for the following:

- dry goods
- chilled and frozen foods
- fresh fruit and vegetables
- returned/recalled foods
- packaging material
- cooking utensils and equipment
- cleaning equipment and chemicals
- clothing and personal belongings of staff
- garbage and recyclable materials
- storage facilities must allow the safe retrieval of stored items.

Table 4.1: Recommended storage requirements (m^2/seat) for medium sized restaurant (Neufert Architectural Data 3rd Edition p.460)

Waste/Refuge storage	0.04 – 0.06 m^2/seat
Chilled goods storage	0.21 – 0.26 m^2/seat
Ambient (dry goods) storage	0.21 – 0.26 m^2/seat
Total	**0.46 – 0.58 m^2/seat**

4.2 Utensils

It is recommended that utensils be stored under the bench in containers or drawers.

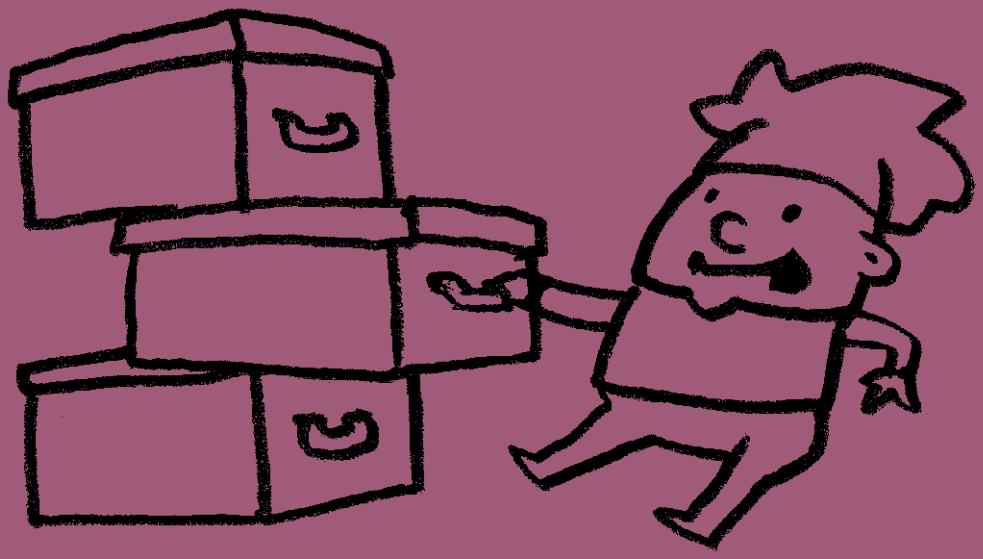
Utensils that are stored on work surfaces or hung above benches will collect dust and grease, particularly if located near exhaust fans or hoods, and are a potential hazard to staff working at the bench.

4.3 Hazardous substances

Hazardous substances, including cleaning agents and pest control chemicals must be stored in an area (cupboard or separate room) dedicated to that use, and located away from food storage and preparation areas.

Hazardous substances (including decanted hazardous substances) must be clearly and appropriately labelled.

STORAGE



5

The internal walls and ceilings of a commercial kitchen must be appropriately designed and constructed to achieve required hygiene levels.

Section 5
WALLS AND CEILINGS

Glossary

Coving: The curving of a floor material at the intersection of the floor and wall surfaces, so as to make a smooth continuous curved skirting.

Epoxy grout: A resin and generally cement-based material that adheres and seals tiles for commercial kitchen use and is approximately 99% impervious to moisture.

Fire resistance level: the time it takes for a structural element to catch on fire.

Impervious: A material that is or is made to be resistant to wet substances penetrating its surface in any way.

Sealed: A material that has been coated in a particular way so as not to let moisture penetrate its surface.

Suspended acoustic tile ceiling: A ceiling that is suspended from the roof or floor above, and comprises individual ceiling tiles in a grid.

Welded joints: Where joins in plastic-based floor materials are heat-treated to create a join that will not harbour moisture, dirt or mould when cleaned or after having something spilt on them.

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises: 2.1

AS 3958.1 -1991

Ceramic tiles Part 1

5.1 Ceilings

The average height for a ceiling in a commercial kitchen should be not less than 2400mm. This includes all preparation and storage areas.

The finished ceiling surface must not have any perforation or exposed joints, cracks or crevices. This is to prevent the contamination of food and enable effective cleaning of the surface. This also ensures that the ceiling is pest proof.

Suspended acoustic tile ceilings are not permitted in food preparation areas or where food is displayed or served. They are difficult to clean to the required hygiene standards and may harbour dust, grease and insects at the top of the drop ceiling.

The wall-to-ceiling junction must be tightly joined and sealed. The junction must be constructed so that no dust, grease or food particles can collect in the joint.

Where a sealant is used in the ceiling joint it must be made of a material that is impervious and washable.

It is recommended that ceilings and walls in the kitchen be painted in a light shade. This is so that dirt and grease are more easily visible and therefore seen and cleaned.

Recommended finishes include:

- paint finish on flush plasterboard linings.

5.2 Walls

The finishes on the walls must be impervious to grease, food particles and water.

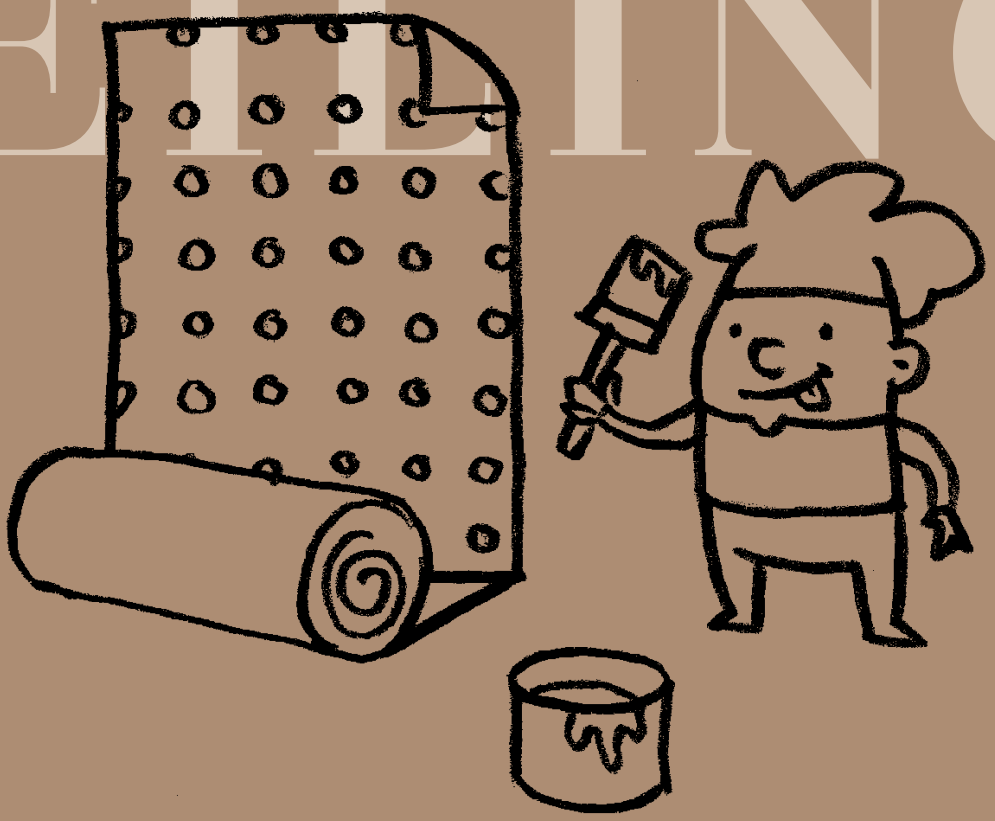
The finish must be smooth and even. The surface should have no buckles, ledges or exposed fixings.

The finished surface of the walls must be easy to clean.

Recommended finishes include:

- paint finish on hard plaster or flush plasterboard linings
- ceramic tiles with epoxy grout
- stainless steel or aluminium sheet with welded joints and sealed fixings
- laminated plastic sheeting
- PVC sheeting, which is welded at the seams.

WALLS & CEILINGS



6

This section refers to the management of air quality inside a commercial kitchen, the amount of airflow, its supply and the exhaust of airborne cooking waste.

An effective commercial kitchen ventilation system requires 'air balance', in which the exhausting of fumes, smoke, grease and steam is balanced by the introduction of fresh, clean air. In busy kitchens where people are generally working close together there is a need for some form of controlled ventilation and air conditioning. The kitchen exhaust system is an essential part of the cooking process. The presence of fumes, smoke, grease, steam and vapours pollutes the atmosphere, may interfere with food flavours and aromas, and cause distress to staff.

Section 6
VENTILATION

Glossary

Airborne: Transported by the air.

Duct: Tube or channel for conveying air.

Make-up air: The air needed to replace the waste air that has been extracted from the room.

Vapour: The air-like substance into which certain liquid or solid substances can be converted by heating.

Vent: An opening allowing air to pass out of or into a confined space.

Section 6
VENTILATION

BCA

Volume 1, Section F4, Lighting and Ventilation

OHSW

Division 2.17 Ventilation

6.1 Natural ventilation

An adequate supply of clean air must be provided and maintained within a commercial kitchen. The simplest form of ventilation is natural, involving the use of windows, doorways, vents and skylights. These should allow sufficient airflow to maintain a healthy working environment.

Replacement air provides the airflow required by exhaust systems. If replacement air doesn't come into the room, then the exhaust hood may not capture and contain airborne cooking waste due to the reduced airflow. This could allow cooking odours and waste air to escape into the dining area.

Considerable care must be taken where doorways and windows are used for natural ventilation that fumes and dirt from surrounding premises are not drawn into the kitchen.

In some cases supplemental air from an adjoining room maybe required to assist the airflow plan. The kitchen staff must have control of these adjoining window or doorway sources to be able to maintain airflow. Adjoining toilets and bathrooms are not allowed to be used for supplemental air. Ventilation inlets and outlets should be positioned to maximise cross ventilation.

6.2 Exhaust systems

Exhaust systems are made of a number of interdependent units. Exhaust hoods, exhaust fans, make-up air units, and packaged rooftop HVAC (Heating Ventilation Air Conditioning) units all need to operate within defined parameters to complement one another and to maintain peak performance.

An effective exhaust system should get rid of:

- heat
- particulate matter
- grease laden steam
- cooking vapours.

Exhaust hoods should be placed above cooking equipment and have the ability to capture and contain the airborne waste matter produced by cooking equipment.

Exhaust fans must be capable of removing the collected airborne wastes at a rate equivalent to their generation, and make-up air units need to be capable of replacing an equivalent volume of the extracted waste fumes. The replaced air can be heated, cooled or dehumidified as necessary by the HVAC unit working in unison with the other units.

AS 1668.1 -1998 & AS 1668.2 -2002

The use of ventilation and air conditioning in buildings.

The location of make-up air units in the commercial kitchen should be positioned as far away as possible from the source of the pollutants to maximise cross ventilation. All exhaust gases should be discharged to the atmosphere through ducts and careful consideration must be given to the separation of exhaust discharge from air-intakes and from neighbouring properties.

6.3 Airflow plan and design

It is important that all commercial kitchens have an effective airflow plan. The plan should take into account all equipment that produces waste air (stove, deep fryer, dishwasher, etc) and then balance this with clean make-up air. The extraction of waste air and intake of clean air should form a stable airflow pattern inside the kitchen. The kitchen staff should all be aware of this plan, understand how it works and be prepared to act if any problems arise.

6.4 Air conditioning

A controlled ventilation system or air conditioning unit is usually required in larger commercial kitchens where natural ventilation does not provide a consistent temperature. This will vary according to the location and design of the building. Air conditioning is needed in warmer climates in case kitchen temperatures become excessive.

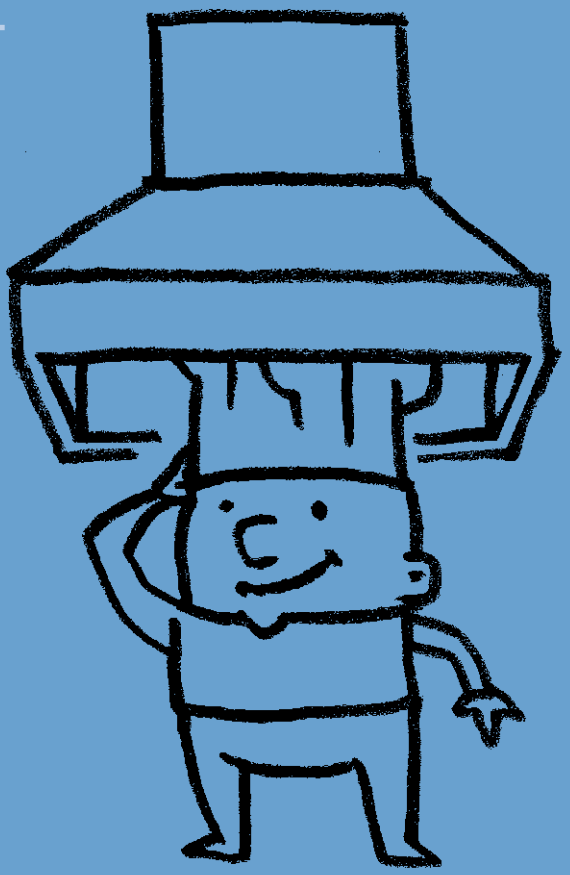
Contractors must record all maintenance activity in maintenance schedules.

6.5 Environmental considerations

To reduce energy consumption through back air conditioning, food premises should consider the following in the specification and design of ventilation systems:

- utilise natural ventilation where possible and where air conditioning is required use efficient central plant with local controls over package units if possible. Where this is not possible, select energy efficient package units
- control general staff access to thermostats to reduce unnecessary heating and cooling and make use of process heating during winter
- undertake an energy audit prior to a new fit out and develop an energy reduction strategy as part of the fit out services design brief.

VENTILATION



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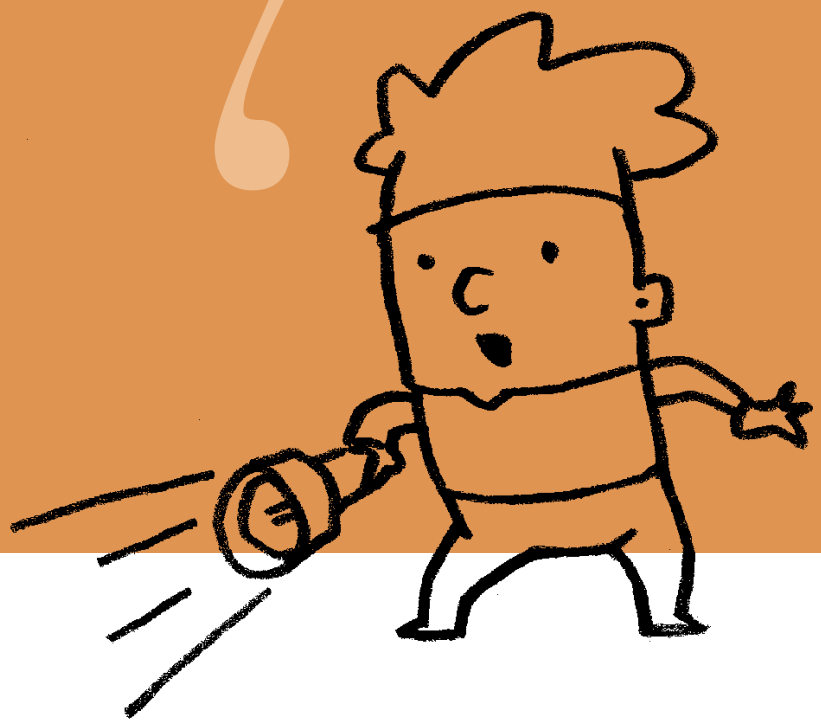


This section provides recommendations for the design of lighting in a commercial kitchen.

Section 7
LIGHTING

Glossary

Diffuser: A cover over a light fitting which promotes an even distribution of light through out the area.

Glare: Light that is too bright or intense.

Illuminance level: The amount of light in an area.

Reflectance level: The amount of light that is reflected from a surface, such as walls, floors and ceiling.

Splashback: An area of impervious material such as metal, tiles etc which is adhered to a wall behind a workbench or sink.

Section 7
LIGHTING

OHSW

Division 2.8 Lighting

BCA

Volume 1, Section F4, Lighting and Ventilation

AS 1680.20 -1990

Interior Lighting; Part 1

7.1 General requirements

Adequate and properly designed lighting is essential in a commercial kitchen for staff to efficiently do their tasks including cooking, cleaning, food preparation and presentation. The area should be as free from glare and unwanted reflections as is practicable.

The design of a lighting system must take into account:

- available natural light
- required luminance levels (lux) for the tasks being performed
- reflectance of surfaces
- emergency lighting requirements.

A properly designed lighting system will help to reduce energy costs and improve the working environment for staff. In addition, electrical supply systems and emergency lighting must comply with statutory requirements. It is recommended that qualified electrical engineers, designers and/or tradespersons are engaged to ensure compliance.

7.2 Natural and artificial lighting

The relationship between natural and artificial lighting is important to consider when lighting a commercial kitchen. While artificial lighting will normally be the main source of light, it is desirable to include natural light sources. Ideally windows in the kitchen should not be less than 10 percent of the total floor area, and should look out onto the sky or open space.

Windows and skylights can provide views and allow light into a space, improving the staff working environment, however they can also be problematic as a source of glare. Careful consideration should be given to the positioning of windows and the interaction between natural and artificial light levels.

The recommended illuminance level for a commercial kitchen's general working area is 160 lux. For food preparation, cooking and washing areas the luminance should be 240 lux. Dessert presentations and cake decorating require 400-800 lux (Douglas, pp. 32-33).

7.3 Reflectance

OHSW

Division 2.8 Lighting

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises

Interfering reflections and glare can cause reduced visibility and become a source of distraction and annoyance.

Light will reflect off walls, ceilings, floors and work surfaces. Therefore, the colour, material and type of finish of these surfaces should be carefully considered. The reflectance from these surfaces contributes to the overall luminance level of the area. Taking these considerations into account will result in good visibility conditions for the kitchen.

Ceilings occupy a substantial amount of the field of view. For large areas where there is indirect light penetrating the space, it is advisable to render the ceiling white or near white. Regardless of the size of the rooms the ceiling should have a reflectance level as close to 70 percent as possible.

Wall reflectance is important even though its contribution to the distribution of light is small. A high gloss finish creates glare, causing staff discomfort and fatigue.

For surfaces below eye level such as bench tops and floors, non-glossy finishes are recommended.

The colours and finishes should be selected taking into account contrasts between surfaces. For example, there should be a difference between the bench and wall. Finishes should not provide glare yet provide enough reflective light for staff to safely and effectively carry out their tasks.

7.4 Light fitting considerations

Light fittings need to be installed in such a way that will not contribute to food contamination. They should also be designed and installed in a way that facilitates ease of cleaning. Fittings should be generally recessed or surface mounted on ceilings. Suspended fittings will collect dust and become a source of contamination to food.

Properly designed diffusers should be installed to assist with even distribution of light and contain fragments in the event of a globe shattering.

The illuminance level should be made at least 100 lux higher than the recommended level, because of a light loss factor that occurs over time.

OHSW

Division 2.6 Emergency Facilities and Procedures

7.5 Emergency lighting

Emergency lighting ensures that patrons and staff are able to be safely and effectively evacuated from the premises.

AS 2293.1 -1998

Emergency Evacuation and Lighting for Buildings; Part 1

Emergency lighting turns on automatically from its own power supply whenever there is a power failure.

The emergency lights must be positioned at exits, at any point where there is a potential hazard (e.g. a change in floor level) and at regular intervals to maintain minimum lighting levels.

The location of emergency lights should not cause excessive glare and interfere with a person trying to leave the premises.

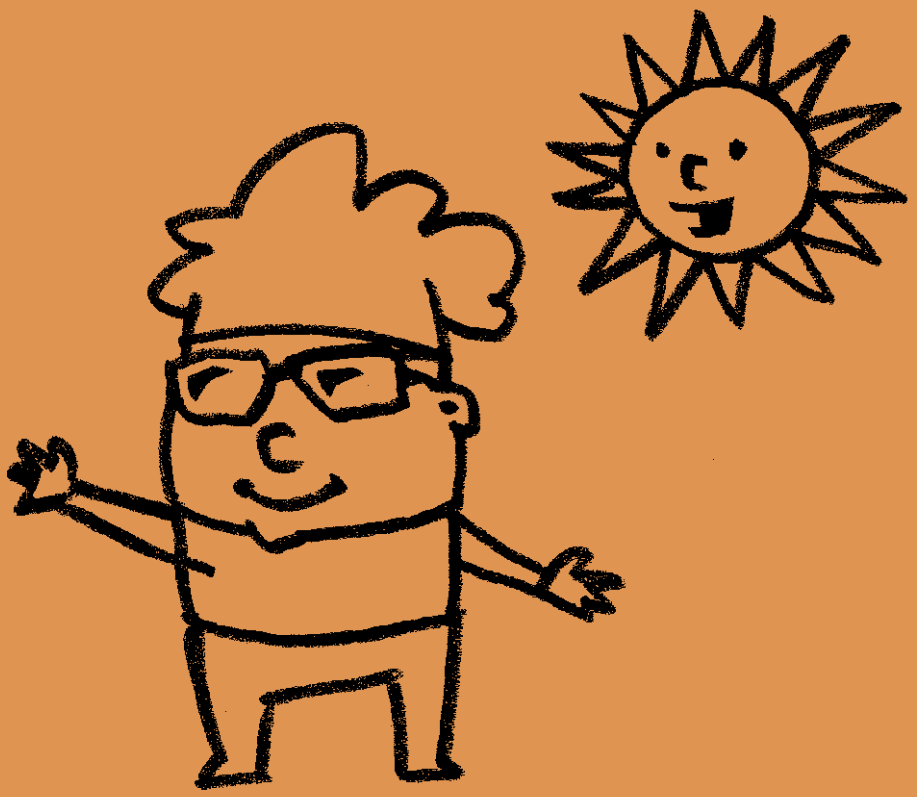
Emergency lighting systems must be maintained on a regular basis and maintenance checks recorded in a log book.

7.6 Environmental considerations

To reduce energy consumption through lighting in commercial kitchens, consideration should be given to the following in the selection of lighting elements:

- for new lighting to kitchen, storage and all back-of-house areas select T5 fluorescent lamps with electronic ballasts
- for front of house areas consider replacing incandescent lamps with low energy lamps (e.g. compact fluorescent wherever possible)
- use T5 fluorescent lamps in signage and menu boards
- in existing fluorescent fittings, re-lamp with triphosphor lamps and undertake re-lamping and cleaning programs on a regular basis
- install movement sensors to store rooms etc. to ensure lights are turned off when not in use
- commercial kitchen managers/owners should contact their local energy provider and consider switching to green power
- undertake an energy audit prior to fit out and deveop an energy reduction strategy as part of the fit out services design brief.

LIGHTING



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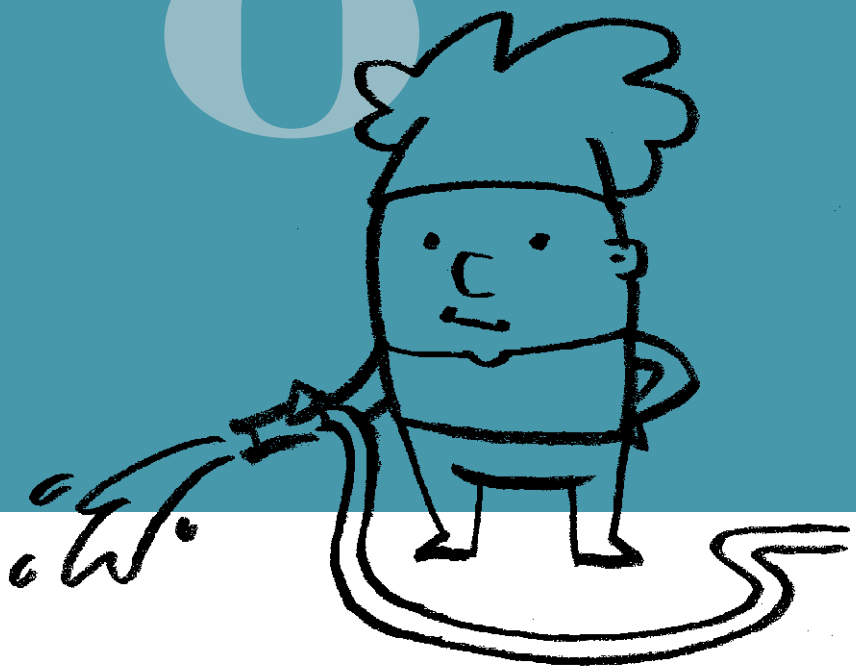

This section refers to water supply and drainage in a commercial kitchen.

The design and installation of water supply and drainage systems must comply with statutory requirements. It is recommended that qualified hydraulic engineers and/or tradespersons are engaged to ensure compliance.

Section 8
WATER SUPPLY AND DRAINAGE

Glossary

Non-potable water: Water that is not suitable for human consumption.

AS 3500.1.1 -1998

National Plumbing and Drainage; Sections 7.1 – 7.2

8.1 Water supply

Water supply is required for the following:

- drinking
- cooking
- ice making
- cleaning
- sanitising
- personal hygiene
- fire suppression systems (fire hydrants, hose reels and sprinkler systems).

AS 3500.1.1 -1998

National Plumbing and Drainage; Section 1.6.1

Separate non-potable water supplies are often used for fire suppression systems.

Hot water must be stored at a minimum of 60°C to prevent growth of bacteria such as Legionella.

Water pressure must be adequate to meet all the demands of the commercial kitchen.

8.2 Drainage

Plumbing and drainage shall comply with AS/NZS 3500.2.2-1996, National Plumbing and Drainage, Part 2.2: Sanitary plumbing drainage.

WATER SUPPLY & DRAINAGE

9

This section provides information on flooring within a commercial kitchen area, including drainage and selection of materials.

Section 9
FLOORING

Glossary

Coving: The curving of a floor material at the intersection of the floor and wall surfaces, so as to make a smooth and continuous curved skirting.

Epoxy resins: A resin based floor material that is sealed for commercial kitchen use and is impervious to moisture and does not promote the harbouring of dirt or mould.

Flooring substrate: Base surface to which flooring material is applied.

Impervious: A material that is or is made to be resistant to wet substances penetrating its surface in any way.

Welded joints: Joins in plastic-based floor materials heat-treated to create a join that will not harbour moisture, dirt or mould when cleaned. The term also applies to metal floor surfaces.

Section 9
FLOORING

AFS/ NZFS 3.2.3

Section 10: Floors

9.1 Floor finishes and serviceability

Floors in food premises must be able to be cleaned effectively and thoroughly, must not absorb grease, food substances or water, harbour pests, and should be laid so as not to cause pooling of water.

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises: 2.9.1 Floors General 2.9.2 Suitability of floor finishes for food premises areas, 2.9.3 Food preparation areas

Following is a list of suitable commercial kitchen flooring surfaces:

- stainless steel with a non-slip profile and welded joints
- ceramic tiles with epoxy grouting
- quarry tiles with impervious sealer
- polyvinyl sheet or tiles with heat welded joints
- steel trowel case hardened concrete with epoxy sealant.

The use of PVC Sheet or tiles should be avoided adjacent to hot fat appliances such as deep fryers.

AS 3500.2.1 -1996

National Plumbing and Drainage; Part 2.1: Sanitary Plumbing and Drainage – Performance Requirements

It is imperative that all commercial kitchen floors and staff amenities floors have a non-slip surface. These surfaces should meet the requirements of AS 3661.1.

In all cases, installation should be undertaken by appropriately qualified tradespersons to ensure proper adherence to the substrate, and adequate sealing of joints to maintain an impervious surface.

AS 3661.1 -1993

Slip Resistance of Pedestrian Surfaces

Flooring should be cleaned and maintained in accordance with manufacturer's instructions in order to maintain slip-resistance.

9.2 Floor drainage

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises: 2.9.5 Coving, 2.9.6 Plinths

The substrate of commercial kitchen floors should preferably be concrete, and graded to floor drainage outlets to prevent pooling of water.

Drainage outlets should be located adjacent to water supply points including sinks, basins and dishwashers.

Special attention should be given to the installation of floor finishes at the junction drainage outlets to prevent the build-up of dirt and grease and maintain the integrity of the waterproofing.

9.3 Floor and wall intersections

The junction of floor and wall surfaces can become a source of contamination through the build-up of grease and dirt. It is recommended that the junction be coved to assist with cleaning.

FLOORING

10

This section covers the food safety program, food handling controls such as food processing, food display, food packaging and transportation of food, as well as food handling.

Section 10
FOOD PREPARATION

Glossary

Food-borne disease: A disease that is likely to be transmitted through consumption of contaminated food.

Food safety program: A program that is set out in a written document, and kept at the food premises, which includes records of compliance and other related actions.

Potentially hazardous food: Food that has to be kept at certain temperatures to minimise the growth of any pathogenic micro-organisms that may be present in the food or to prevent the formation of toxins in the food.

Process: The activity of preparing food for sale including chopping, cooking, drying, fermenting, heating, pasteurizing, thawing and washing, or a combination of these activities.

Ready-to-eat food: Food that is consumed in the same state as that in which it is sold and does not include nuts in the shell and whole, raw fruits and vegetables that are intended for hulling, peeling or washing by the consumer.

Temperature control: Maintaining food at required temperatures.

Food Safety Programs

AFS 3.2.1

10.1 Food safety programs

A commercial kitchen requires a food safety program, as stated in the Food Safety Standard 3.2.1 Food Safety Programs.

A food business must:

- systematically examine all of its food handling operations in order to identify the potential hazards that may reasonably be expected to occur
- develop and implement a food safety program to control hazards
- keep a copy of the food program at the food premises
- comply with the food safety program
- conduct a review of the food safety program at least annually to ensure its adequacy.

A food safety program must:

- identify any potential hazards that may occur in all food handling operations of the food business
- identify each hazard and the means to control it
- provide a monitoring system for the controls
- be regularly reviewed to ensure its sufficiency.

All appropriate records must be made and kept by the food business to demonstrate the action taken in compliance with the food safety program.

When auditing a food safety program a food business must:

- ensure that the food safety auditor audits the food safety program as frequently as is applicable to the food business
- make the written documents that set out the food safety program and any other relevant records available for the food safety auditor at the time of auditing of the food safety program
- retain copies of all written reports during the course of all audits of the food safety program that are conducted by the food safety auditor, or an authorised officer during the last four years.

10.2 Food handling controls

10.2.1 Food receipt

A food business must take measures to ensure it only accepts food free from contamination. A food business must provide an authorised officer (i.e. council), the following information relating to food on the food premises:

- the name and business address in Australia of the vendor, manufacturer or packer, or, in the case of food imported into Australia, the name and business address in Australia of the importer
- the prescribed name or, if there is not a prescribed name, an appropriate designation of the food.

Measures must be taken when accepting food that the temperature is at 5˚C or below, or 60˚C or above, unless it can be demonstrated that while transporting food, the temperature of the food (having regard to the time taken to transport the food), will not affect the safety of the food.

When receiving food, a food business must take all measures that ensure that food which is intended to be received frozen, is frozen when it is accepted.

10.2.2 Food processing

A food business must take all measures to process only safe and suitable food. When processing (cooking) food all steps must be taken to prevent food from being contaminated.

When cooling cooked food, a food business should cool the food:

- within two hours – from 60˚C to 21˚C
- within a further four hours – from 21˚C to 5˚C, unless the cooling process used will not affect the micro-biological safety of the food.

In a case where a food business receives pre-cooked food, reheats previously cooked and cooled food to hold it hot, or needs to use a heat process that rapidly heats the food to a temperature of 60˚C or above, the heating process used must not affect the micro-biological safety of the food.

AFS 3.2.1
Food Safety Programs

AFS 3.2.2
Food Safety Practices & General Requirements

10.2.3 Food display

When displaying food, a food business should take measures to protect the food from being contaminated. When displaying unpackaged ready-to-eat food for self-service, a food business must:

- display the food so it is supervised, so that food is not contaminated by a customer, or if contaminated, can be removed quickly away from the display
- provide separate utensils or other types of dispensing equipment for each food to minimise contamination
- provide protective barriers to avoid contamination between the food and customers.

Food that is displayed on a counter or bar and intended for self-service, must be enclosed, contained, or wrapped, and be protected from any contamination. When food is displayed it must be displayed under temperature control, and if it is frozen it must remain frozen when displayed.

10.2.4 Food packaging

When packaging food, a food business must:

- only use packaging for its intended use
- use materials that will not cause food contamination
- ensure that food will not become contaminated during the packaging process.

Food transportation by vehicles

When transporting food, a food business must:

- protect all food from the likelihood of contamination
- transport food under appropriate temperature control
- ensure that food which is intended to be transported frozen, remains frozen during transportation.

10.2.5 Temperature measuring devices

A temperature-measuring device needs to readily accessible and must accurately measure the temperature of food to +/- 1˚C.

The temperature of food should be maintained at:

- 5˚Celsius, or below. This is to minimise the growth of infectious or toxigenic micro-organisms in the food so that the safety of the food will not be adversely affected for the time the food is at that temperature; or
- 60˚Celsius, or above; or
- another temperature, only if the food business can demonstrate that the maintenance of the food at that temperature for the period of time for which it will be so maintained, will not in any way affect the microbiological safety of the food.

10.3 Food handling

AFS 3.2.1 Food Safety Programs

AFS 3.2.2 Food Safety Practices & General Requirements

Staff undertaking or supervising food handling operations must have the skills and knowledge in food safety and food hygiene matters.

10.3.1 Health of persons who handle food

Staff handling food must not contaminate it by:

- carrying a food-borne disease
- a person suspected of suffering from a condition continuing to handle food. In such cases the food business must take measures to prevent food contamination

A person who has suffered from a condition can resume handling food only after receiving advice from a medical practitioner that the person is no longer suffering from the condition.

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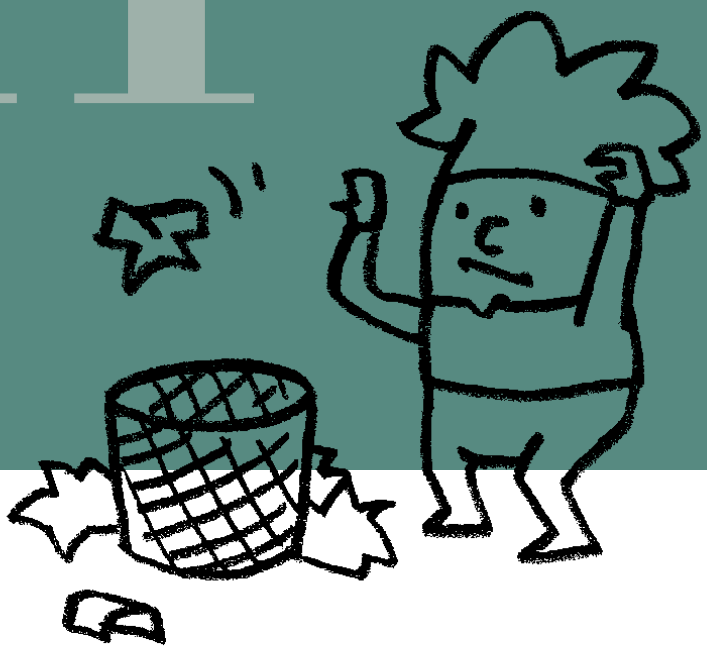

This section refers to the appropriate disposal systems for specific waste products, adequate storage, ideal location and recycling. Proper storage and disposal of waste in the kitchen is vital in achieving a sanitary and pest-free environment that will reduce contamination.

Section 11
WASTE

Glossary

Impervious: A material that is, or is made to be, resistant to wet substances penetrating its surface in any way.

AFS 3.2.2

Food Safety Practices & General Requirements

OHSW

Division 2.9 Manual Handling

11.1 Disposal systems

Disposal systems are the actions performed to remove waste in a commercial kitchen from the premises. The kitchen's waste disposal system must be developed to prevent the occurrence of injury resulting from manual handling tasks (e.g. lifting of waste containers).

Appropriate measures need to be taken to dispose of the following:

- food for disposal
- grease
- garbage
- recyclables.

Food for disposal is food that is:

- previously served
- unsafe or suspected of being unsafe
- unsuitable or suspected of being unsuitable
- to be recalled or returned.

11.1.1 Food / general waste disposal system

Food disposal system procedures ensure that food for disposal is not used in any food preparation. All food for disposal must be clearly identified.

Food for disposal must be isolated until it is:

- returned
- destroyed
- disposed
- altered in a way that deems it suitable for human consumption.

The disposal system for food begins with identifying and then accumulating the waste.

There should be waste facilities located:

- at the food preparation area
- near the washing area for the served food that has not been eaten.

Waste facilities are usually bins lined with disposable plastic bags, or sacks that are kept under work surfaces. Incinerators and garbage chutes may also used.

Bins can be accessed:

- under a bench
- ideally, through a cut-out hole in the work surface above the bin.

The second option is preferred because, as well as providing easy access, it also facilitates clean up as waste on the work surface can be easily wiped into the bin. It is unnecessary to have bins continually enclosed if they are being utilised and emptied constantly in a pest-free environment.

AFS 3.2.2
Food Safety Practices & General Requirements

Waste should then be relocated to a dedicated waste disposal area, which is usually outside the back door or in a separate room. When transporting the waste it should never pass through the kitchen or restaurant area. It is common practice to take the bins or disposable plastic bags outside to an industrial bin where they are emptied. If the entire bin were taken outside it should preferably be on wheels for easy transport.

AS/NZS DR01314
Draft for Design, Construction and Fit Out of Food Premises

Industrial bins must be enclosed, sealed tightly with a lid, and opened only when filling. Exposed waste left outside will attract animals and pests. To avoid unpleasant smells from the decomposition of waste, a garbage contractor should collect it at adequate intervals.

11.1.2 Recyclable disposal system

When disposing of recyclable materials such as bottles and cans, it is common practice to fill bins or crates within the kitchen before moving the crates or bins outside or into a separate room for collection. If a room is used for waste collection, it should be away from food storage and preparation areas to avoid contamination.

11.1.3 Grease disposal system

Qualified persons must empty grease traps and arrestors on a regular basis.

11.1.4 Garbage chutes

Where garbage chutes are used for waste disposal, they should be made of stainless steel. If any part of the chute is inaccessible, it should include a built-in washing facility.

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises

AFS 3.2.3

Food Premises and Equipment

11.2 Storage

11.2.1 Waste storage containers

Every commercial kitchen requires both internal and external storage containers to hold waste and recyclable material that the kitchen produces, until it is dealt with accordingly. To reduce the possibility that waste collection will lead to food contamination and/or attract pests, waste containers should be:

- sized to handle the expected volume of waste
- made of an impervious material (e.g. plastic or metal)
- clearly identified
- appropriate for the contents
- adequate to fully enclose its contents
- able to be cleaned with ease and with adequate results
- perforated at the base to allow water to escape if the container is so heavy that it can't be tipped over for draining after cleaning.
- designed and maintained so as to be safe and not to risk health and safety.

11.2.2 Storage areas

Waste storage containers require dedicated storage areas. They can be kept in an area outside the kitchen or in a room that is designated for that purpose. If an internal room is used it should:

- be located away from food locations to avoid possible contamination
- have adequate ventilation
- prevent the entry and harbouring of pests
- ensure water that has been used in cleaning the area exits only through a drain and does not escape into other areas.

11.3 Location

Storage areas for waste should be located away from food storage and preparation areas to avoid contamination. Waste material should never pass through the kitchen or restaurant area.

Grease arrestors must not be positioned in areas where food, equipment and packaging materials are located.

11.4 Flooring

The floor of waste collection areas should be:

- of solid construction
- made of an impervious material
- graded to a drainage point.

Refer also to Section 9 Flooring

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises

AS 4709 -2001

Guide to Cleaning and Sanitising of plant and equipment in food industry

11.5 Cleaning

Whether internal or external, the waste collection areas and waste containers will need to be washed down regularly. It is recommended they are washed down daily. For this reason there should be a tap and hose connection in the vicinity. It is recommended that the bins are also washed daily.

The design of wash down areas must include special provisions to prevent contaminants and cleaning chemicals entering the stormwater or sewage system.

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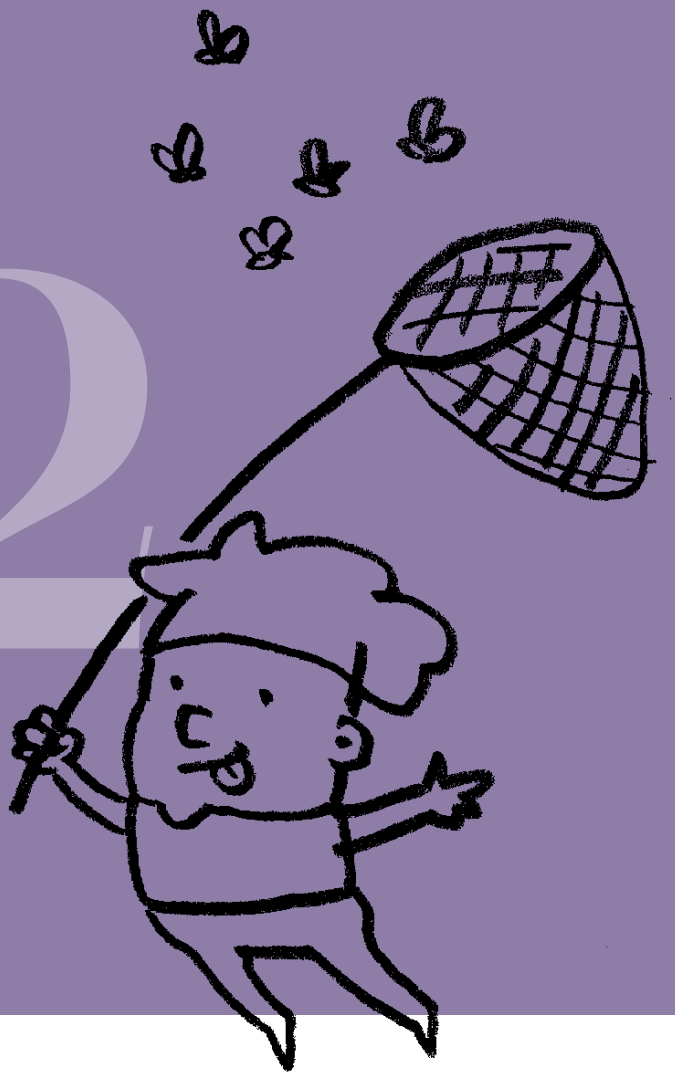


This section refers to preventing pests in a commercial kitchen. The major reasons for pests entering a kitchen are to search for food, water and shelter. It should be noted that it will usually cost more to remove pests than it will to prevent them entering in the first place.

Section 12
PEST CONTROL

Glossary

Air curtains: Machine typically mounted above an opening, (although vertical mounting is also possible) that creates an air draft across an opening, which prevents flying insects from entering.

Bait: Product designed to lure and kill pests.

Fly door: Door that allows air to flow through but not pests.

Fly strips: Row of over-lapping plastic strips that hang in a doorway preventing entry by flying pests.

Harbour: Refuge, shelter, secure.

Penetration and service areas: Areas where pipes and wires etc go through walls, floors, roofs etc.

Pests: Nuisance animals, insects etc.

Traps: Device used to seal passages so that substances can't escape.

Section 12
PEST CONTROL

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises

AFS 3.2.2

Food Safety Practices & General Requirements

12.1 Prevention

Live animals (except shellfish and the like used in food preparation) are not permitted in any commercial kitchen. Food premises should be designed to minimise the possibility of any animal or pest entering or harbouring within.

The following measures should be adopted to minimise the risk of pests entering the food premises.

Externally

- prune back trees that over-hang the roof
- maintain a minimum 1200mm wide free draining paved surface around the premises
- avoid storing waste bins against external walls
- install rodent proof strips at all entrance doors
- install self-closing devices on entrance doors
- cover external vents with wire mesh
- seal service penetrations (electrical and plumbing services) in external walls
- install profiled sealing strips at the junction of roofs and external walls
- ensure windows are tightly fitting and install flyscreens where they can be opened.

Internally

- ensure floors in wet areas are properly graded to prevent ponding of water
- repair cracks and gaps in walls which may harbour pests.

Waste management

Implement a controlled waste management system (refer to section 11 of this document).

Storage areas

In regards to pest control in storage areas, the following actions should occur:

- inspect stock daily
- rotate stock on a regular basis
- install appropriate exhaust systems
- position store room racks 600mm from the walls.

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises

12.2 Insect control

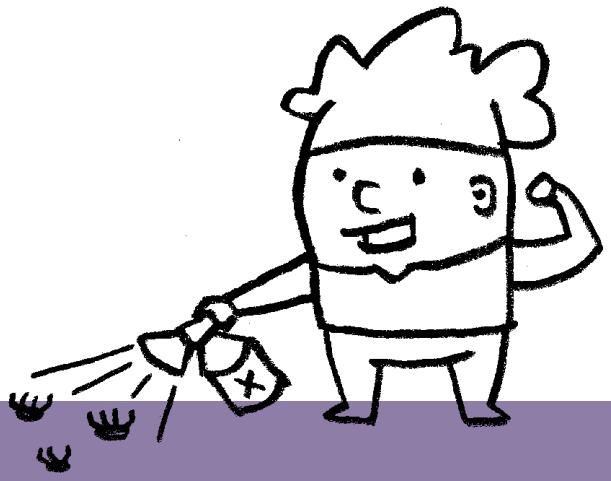
Despite best efforts and good practice, insects may still enter the kitchen.

Flying insects can be eliminated through the use of insect control devices, e.g. electronic insect killers. It is recommended that such devices are located at entrances to eliminate the insects on entry. Ideally the insect control device will contain the insects although if the device kills the bug causing them to drop, consideration must be given as to where the insects will land so that they do not contaminate food or food preparation areas.

Crawling insects can be controlled through the use of baits, e.g. cockroach baits. Some food premises choose to keep permanent baits on the floor where food is likely to be dropped, around ovens for example. Others use baits only when there is a concern. Baits should not be placed anywhere where they could contaminate food.

12.3 Monitoring

Every commercial kitchen should have a documented, serviced and verified pest control program. A registered service should be contacted for an appraisal. Components and pest control regimes should be monitored by a licensed pest controller who is QA accredited, food safety assured, has the appropriate insurance and is Commonwealth approved.



13

This section aims to increase awareness and provides detailed information concerning the importance and the different types of signage that can be found in a commercial kitchen or in a food business premises.

Section 13
SIGNAGE

Glossary

Directional: A line or a path in which a person moves.

Signage: Something that indicates a fact or requirement that is not immediately obvious.

Section 13
SIGNAGE

OHSW

Division 2.6 Emergency Facilities and Procedures

13.1 Emergency signage

Exit signs

Exit signs are required to direct people to exit doors in the case of an emergency.

AS/NZS 2293.1 -1995

Emergency evacuation lighting for buildings, Part 3: Emergency luminaries and exit signs, Section 3

They must be installed so they are clearly visible at all times. Where the location of the exit is not readily apparent, the exit sign must also include directional arrows to indicate the path of travel.

The design of exit signs must comply with the requirements of AS/NZS 2293.1

AS/NZS 2293.1 -1998

Emergency evacuation lighting for buildings, Part 1: System, design, installation and operation

Fire emergency signage

It is necessary in a commercial kitchen to provide signage that tells the occupants what to do in the event of a fire. These include:

- signs detailing the emergency evacuation plan for the business. Staff should be made aware of where emergency evacuation procedures are written down
- instructional signs adjacent to fire extinguishers, fire blankets and fire hose reels detailing their correct use.

BCA

Volume 1, Section E4, Emergency Lighting, Exit Signs and Warning Systems

Videos explaining the importance of evacuation procedures and emergency signage are available for purchase from Standards Australia.

First aid signage

Signs should be installed to clearly mark the location of first aid kits. It is important that all staff be made aware of the location and use of first aid kits.

AS/NZS 1221 -1997

Fire Hose Reels

AS/NZS 2444 -2001

Portable Fire Extinguishers and Fire Blankets – Selection and Location

It is also recommended that a poster be displayed to explain the correct procedures of CPR (Coronary Pulmonary Respiration).

13.2 Hygiene signage

Personal hygiene signage

Personal hygiene of staff is important to prevent contamination of food.

AS/NZS 3504 -1995

Fire Blankets

Posters or signs should be displayed in kitchens to make staff aware of:

- the correct procedures for washing hands, and when this must be done
- what do in the event of a minor illness (for example, a cold)
- the business's policies regarding grooming, clothes, wearing of jewellery, tying of hair etc.

AS 1319 -1994

Safety Signs for the Occupational Environment

Kitchen hygiene signage

Posters should be displayed that detail the procedures necessary to keep the kitchen clean and hygienic. These posters should include guidelines for different areas of food preparation, processing and storage. They should also provide a detailed description of the cleaning requirements of each area.

Check lists

To keep track of hygiene and cleanliness issues, a checklist of procedures is recommended. The checklist should provide a brief description of what is required, with other relevant information such as the cleaning procedure, and the cleaning product used to achieve the best result.

Cleaning chemicals signage

As different cleaning products generally perform different duties it is important to display a sign in the commercial kitchen explaining the use and potential hazards of each product.

AS 1319 -1994

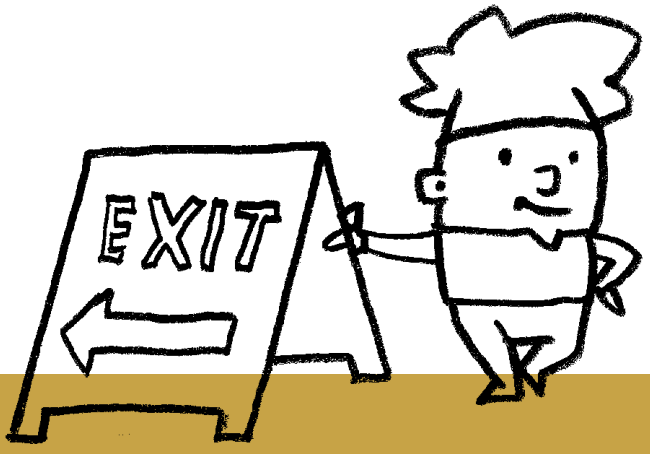
Safety Signs for the Occupational Environment

OHSW

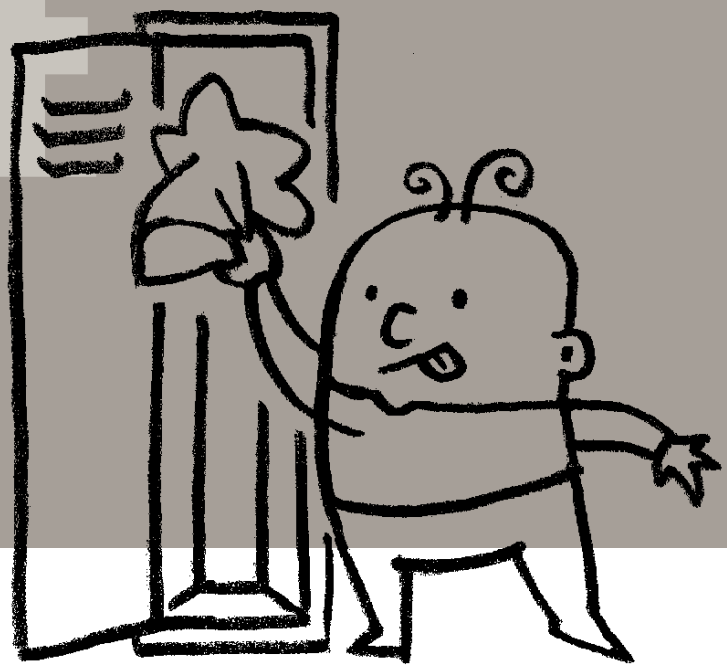
Division 4.1 General Hazardous Substances

13.3 Equipment signage

It is recommended that signs be installed adjacent to equipment that explains their correct use including safety requirements, and procedures for cleaning.



14



This section describes the amenities that should be provided for the staff of a food business.

Section 14
STAFF AMENITIES

Section 14
STAFF AMENITIES

OHSW
Division 2.2 Amenities

AS/NZS DR01314
Draft for Design, Construction and Fit Out of Food Premises: 3.2.2 Clothing and Personal Effects

14.1 Storage of personal items

Staff should be provided with adequate and secure storage for clothing and personal belongings.

If not located in dedicated staff change rooms, lockers should be located away from food preparation and storage areas to prevent possible contamination of food.

14.2 Change rooms

BCA
Volume 1, Sanitary and Other Facilities

Staff should be provided with dedicated change rooms, particularly when they are required to wear uniforms. Gender specific change rooms are not necessary for small businesses; however they should be provided for larger food businesses, and may be incorporated into toilet areas. Change rooms should not open directly onto kitchen areas.

14.3 Toilets

AFS/ NZFS 322
Section 16: Toilet Facilities

AS/NZS DR01314
Draft for Design, Construction and Fit Out of Food Premises: 3.3 Toilet Facilities

It is essential that staff have access to toilets.

For a small business located in a shopping centre, use of the centre's public toilets may be adequate. For larger businesses, staff may share the toilet facilities provided for patrons; however, it is recommended that dedicated staff toilets be provided.

Where no more than 10 staff are employed, a unisex toilet may be provided. A unisex toilet must include one pan, one basin and means of disposing sanitary products.

Where more than 10 staff are employed, separate male and female toilets should be provided. The number of sanitary fixtures (toilet pans, urinals and basins) that must be provided depends on the number of staff and is set out in the Building Code of Australia.

Toilets must not open directly into kitchens or food storage areas and should be accessed via airlocks with self-closing doors.

Toilets must be adequately ventilated in accordance with the Building Code of Australia.

14.4 Storage of office materials

Office materials and paperwork should be stored in a room designated for office use, or located in cupboards that are dedicated to store office materials, and be located away from the food preparation and storage areas.

AS/NZS DR01314

Draft for Design, Construction and Fit Out of Food Premises: 3.2.4 Storage of Office Materials

15

Information on fire and evacuation processes is listed below, and only covers what is required for commercial kitchens. The requirements for the rest of the building must be met throughout the kitchen. This is supplemental information.

Basic fire precautions are:

- all areas should be kept clean from dust, dirt and oil to limit fire damage
- all cooking and high-risk appliances should be watched when in use.

Section 15
FIRE SAFETY

OHSW

Division 2.1, Part 2, Access and Egress
Division 2.6 Emergency Facilities and Procedures
Division 2.7 Fire Prevention

15.1 Emergency procedures

All kitchens must have a written emergency evacuation plan in place. This plan should detail the following actions:

- when the alarm is activated the restaurant's fire warden should receive the first warning (or if part of a larger building their fire warden)
- until the nature of the alarm, whether false or real, is known, employees and customers should continue as per usual
- once the fire warden has assessed the problem, he or she must call the appropriate services and decide upon evacuation
- staff and customers are then to be evacuated in an orderly fashion as planned and practised on previous occasions
- once evacuated, staff are to assemble in a predefined place and await further instructions
- the fire warden is to stay and wait for emergency services and assist them if possible
- a debriefing should occur after each evacuation (training or real) to identify problems with the process as well as to point out the positive aspects
- all areas of restaurants MUST have at least one trial every 12 month period.

AS 3745 -2002

Emergency control organisation and procedures for buildings, structures and workplaces

AS 2220.2 -1989

Emergency warning and inter-communication systems in buildings: System design, installation and commissioning

15.1.1 Emergency manuals

All manuals for emergency devices, solutions to dangerous situations and other emergency instructions etc. should be kept in the same place. They must be clearly labelled, well organised and easy to understand. If instructions are attached to the device, it is advisable to keep a separate copy with the other manuals.

AS 2444 -2001

Portable fire extinguishers and fire blankets: Selection and location

15.2 Emergency devices

BCA

Volume 1, Section E, Services and Equipment

- Emergency devices should be dispersed around the kitchen, not all in the same area.
- Emergency equipment should be serviced at least once a year.

15.2.1 Fire extinguishers

The most common cause of serious fires in commercial kitchens is the over-heating of deep fryer oil.

It is recommended that all extinguishers used in the kitchen are suitable for hot oil fires.

TYPE OF EXTINGUISHER	TYPE OF FIRE, CLASS AND SUITABILITY				
Extinguishant	A	B	C	D	E
	Wood, paper, plastic etc.	flammable liquid	flammable gases	energised electrical equipment	cooking oils and fats
Water	X	–	–	–	–
Wet chemical	X	–	–	–	X
Foam	X	X	–	–	Limited
Powder ABE	X	X	X	X	–
Powder BE	–	X	X	X	X
Carbon dioxide	Limited	Limited	–	X	–
Vaporising liquid	X	Limited	Limited	X	–
Fire blanket	Human torch	–	–	–	X

AS 2444 -2001

Portable fire extinguishers and fire blankets: Selection and location

AS 1851.1 -1995

Maintainance of Fire Protection Equipment: Portable fire extinguishers and fire blankets for buildings, structures and workplaces

How many extinguishers?

The number of extinguishers is dependent on the size of the kitchen.

Location

- They should be in a main thoroughfare, preferably along the exit route.
- They need to be easy to access in a hurry.
- They should be 100mm high off the floor; the top of the extinguisher should be 1200mm from the floor.
- For electrical fires the extinguisher must be closer than 40m from the appliances.
- For cooking oils and fats the extinguishers must be placed between 2 and 20m from the risk. In a commercial kitchen 20m is too far away, it is safer to keep them within 10m.

Maintenance / servicing

Servicing of fire extinguishers must be in accordance with Australian Standards by a licensed service. It is recommended that a company that schedules regular visits for maintenance is used (or contracted) to ensure the equipment is kept to standard.

AS 2444 -2001

Portable fire extinguishers and fire blankets: Selection and location

AS 1851.1 -1995

Maintenance of fire protection equipment: Portable fire extinguishers and fire blankets for buildings, structures and workplaces

Service record

A permanent record must be kept of all servicing that will sequentially record all maintenance carried out on each fire extinguisher, including:

- type of extinguisher, e.g. BE powder
- date of manufacture
- record of the last service. After 6 years a new extinguisher is needed. 12 years is acceptable only when the extinguisher is not subject to environmental extremes, such as steam or high temperatures. This extension is permitted if agreed upon by owner and servicer.
- any defects and the action taken
- a record of missing or misplaced extinguishers
- any other related comments.

This record can be a logbook, a computer-based record system or another permanent record that is easy to interpret for reports and for referencing to an individual extinguisher.

This record must not leave the property. It must be bound if in hard copy but not in loose leaf, the pages must be numbered in triplicate. Each page must be clearly labelled:

1. Original – owner/occupier/agent
2. First copy- service person
3. Second copy– retain in book

The owner/agent and the service person shall sign each record.

RECORD TAGS ARE NOT ACCEPTABLE AS A MAINTENANCE RECORD SYSTEM, though record tags must also be kept on an extinguisher.

Marking

Each extinguisher must show a permanently fixed, unique identification mark which can be referenced back to the maintenance records. The mark can consist of:

- written numbers, letters or a combination of both
- barcode
- magnetic or electronic strip e.g. smart chip.

Other

For extinguishers installed where the temperatures can reach above 50˚c or below 5˚c the extinguisher must be enclosed in a thermally protected case.

15.2.2 Fire blankets

Fire blankets are only to be used to extinguish small cooking and clothing fires.

AS 1851.1 -1995

Maintenance of Fire Protection Equipment: Portable fire extinguishers and fire blankets for buildings, structures and workplaces

AS 2444 -2001

Portable fire extinguishers and fire blankets: Selection and location

AS/NZS 3504 -1995

Fire blankets

Primary information

Each fire blanket must be marked with:

- the words 'fire blanket' in letters greater than 25mm in height, in a contrasting colour to the background
- instructions on how to extinguish a cooking fire in picture form:
  - Gently cover the fire completely with the fire blanket
  - Turn off the source of heat
  - Leave the fire blanket in place until cool
  - Call the fire brigade.
- illustrations on how to extinguish a clothing fire (on fire blankets larger than 1.2 x 1.8m):
  - Stop victim from moving
  - Quickly wrap the fire blanket around the victim
  - Drop victim to the ground until the fire is out
  - Roll the victim on the floor
  - Seek medical assistance.
- a message in contrasting colour that says: 'Warning: this fire blanket is not of adequate size for adult clothing fires' or words to a similar effect on blankets that are smaller than 1.2 x 1.8m
- instructions regarding disposal of the blanket after use.

Secondary information

Blankets are kept in mounted bags, marked with the following:

- name and address or registered trademark of the Australian supplier and the manufacturer's trademark if different
- manufacturer's batch identification code or date of manufacture
- size of the blanket in metres by metres
- the words 'not for electrical fire' if the material has less than 1 MW electrical resistance
- folding instructions preferably in picture form.

How many fire blankets

In commercial kitchens with five or less fire hazards in the same area one fire blanket will suffice. In a larger kitchen more are necessary. They must be close enough to the hazards to be accessed quickly.

Location

Fire blankets must be in an obvious and accessible place. This area must not endanger the user when they reach for it in an emergency, e.g. not the far side of deep fryer.

AS 2444 -2001
Portable fire extinguishers and fire blankets: Selection and location

AS/NZS 3504 -1995
Fire blankets

If more than one fire blanket is kept in the kitchen then they should not all be kept next to each other. This allows more than one person to help fight a fire.

The mounting of the blanket must be strong enough to withstand someone pulling the fire blanket from its container. There must also be enough room to quickly open the blanket without obstruction.

Size

- Fire blankets must be either rectangular or square with no side bigger than 1.8 m and no smaller than 0.9 m.
- A fire blanket cannot weigh more than 10 kg.
- It will have handles with which to hold the blanket.
- It MUST be folded correctly so that when needed it can be opened in less than four seconds.
- It must comply with all other Australian Standards.

Maintenance \ servicing

Inspection of fire blankets must happen every 12 months. This can be done in conjunction with fire extinguisher servicing.

This check shall include:

1. ACCESSIBILITY

- Can the blanket clearly be seen?
- Can it be easily accessed?
- Is it where it should be?
- Has it been installed correctly?

2. THE FIRE BLANKET SIGN

- Is it visible?
- Does it conform to the Australian Standards?

3. FIRE BLANKET BAG

- Is it secure in place? This includes the support.
- Is it clean and undamaged?
- Are the instructions clear and legible?
- Is the maintenance tag attached?

4. BLANKET

- Is there any damage?
- Is it folded correctly?
- Are the handles secure and undamaged?

Servicing record
All maintenance and amendments must be recorded on the maintenance tab.

15.2.3 Other equipment

Fire hose
Fire hoses are not generally used in a kitchen primarily because water is volatile against fats, oils and electrical fires, but if used it must apply with Australian Standards. Water quality can be an issue especially in Perth and Adelaide.

AS 1851.1 -1995
Maintenance of Fire Protection Equipment: Portable fire extinguishers and fire blankets for buildings, structures and workplaces P10

Gas suppression systems
A gas suppression system works well. These generally have a pipe system that goes up the wall with nozzles in the range-hood. These are expensive but a great investment as they are directly over the hazard and are usually heat activated.

As with most fire safety devices, if used in a confined space, then there is a risk of asphyxiation as well as limiting visibility. Once used and the fire is out, leave the room until dangerous vapours disappear.

AS 1851.1 -1995
Maintenance of Fire Protection Equipment: Portable fire extinguishers and fire blankets for buildings, structures and workplaces

Sprinkler systems
Sprinkler systems as with fire hoses, are not generally used unless the kitchen is large, mainly due to their high expense. If a sprinkler system is used, a misting type is generally recommended. They are however, very important for the eating area.

Restaurants and cafés, which fall under 'ordinary hazard 1 occupancies', must comply with all fire safety standards for this occupancy type. If a sprinkler system is required in the restaurant, it must be installed in the kitchen as well.

AS 2118.1 -1999
Automatic fire sprinkler systems: general requirements fire extinguishers and fire blankets for buildings, structures and workplaces

Fire detection systems
These are more of a precaution than a solution. Smoke detectors do not work very well in kitchens. Steam and other vapours disrupt the efficiency of smoke detectors. Also small, easily contained fires are a common occurrence in commercial kitchens that may unnecessarily trigger a smoke alarm. It is recommended to use heat detectors instead. Smoke/heat detectors are not to be placed more than 20 m apart and not more than 10 m from any wall.

BCA

Volume One
E2.2a 5biiia

15.3 Emergency signage

For emergency signage information turn to the section titled *Signage*, then find the heading *Emergency Signage* on page 74.

AS 1670.1 -1995

Fire detection, warning, control and intercom systems: System design, installation and commissioning

15.4 Staff training for emergencies

15.4.1 Fire extinguisher training

At least one staff member who is trained in the proper use of a fire extinguisher shall be present while the kitchen is operating. The more who are trained, the safer the kitchen will be.

OHSW

Division 2.6.2, Emergency exits, procedures and training

15.4.2 Evacuation training

Each staff member should be trained in the skill and knowledge to help them cope in emergency situations.

They should be trained in the following:

- what each of the alarms means: Are different colours for different emergencies? What is the evacuation alarm?
- preparing for emergencies: If a fire blanket is not where it is supposed to be, what should be done?
- how and to whom should emergencies be reported
- reacting safely to emergencies
- evacuating from dangerous or soon to be dangerous areas
- emergencies that may occur
- what are unsafe situations
- how to fix or report unsafe situations
- responsibilities of the wardens
- where to assemble after evacuation and what happens once there.

AS 3745 -2002

Emergency control organization and procedures for buildings, structures and work place selection and location

15.5 Lighting

Refer section 7, page 42.

FIRE SAFETY

16

This section describes the requirements for first aid kits in food businesses and requirements for staff training in first aid.

Restaurants, hotels and clubs are in 'Group A', the lowest risk group in regards to first aid. All the following information adheres to the Occupational Health and First Aid in the Workplace South Australian handbook; other states will have similar laws that should be complied with. It is useful to know where the appropriate external medical or occupational health services are in case of an emergency, where the closest appropriate hospital or clinic is, how long it will take to get there and how an employee would be transported.

Section 16
FIRST AID

OHSW ACT 1986

Occupational Health, Safety and Welfare Act

16.1 First aid kits

There are two different sized commercial first aid kits, the Basic Workplace Kit and the Occupational First Aid Kit.

OHSW

Division 2.11, Occupational Health and First Aid

16.1.1 How many?

One Basic Workplace Kit must be kept on the premises for every 50 staff who are working at one time. For 50 to 100 staff an Occupational First Aid kit is required. If more than 100 then two kits are required. The ratio of kits per people must be maintained when the number of staff increases. In addition to the kit it is highly recommended that a burn module and eye module also be included. For over 400 staff a first aid room is necessary.

OHSW

Approved Code of Practice Occupational Health and First Aid in the Workplace

16.1.2 Contents of first aid kits

Used contents of the kits should be replaced immediately. Regular checks should be conducted to replace any missing, deteriorated or out of date components. This check should be done every few months but can be drawn out to once a year, and can either be done by a first aid organisation or by a selected member of staff.

	Basic First Aid Kit	Occupational First Aid Kit
Gauze pieces 75mm x 75mm, sterile packets containing 5	5 packets	20 packets
BPC wound dressing NO.15	1	2
Wound dressings sterile, non-adherent, small	3	12
Wound dressings sterile, non-adherent, large	1	3
Eye pads, sterile, individually wrapped	–	4
Conforming cotton bandages, 50mm	3	6
Conforming cotton bandages, 75mm	3	6
Conforming cotton bandages, 100mm	1	6
Triangular bandages (minimum width 90mm)	2	6
Non-stretch adhesive tape, 25mm x 2m rolls (hypo-allergenic)	1	1
Adhesive dressing strips, independently wrapped minimum quantity	50	100
Paracetamol tablets	–	24

	Basic First Aid Kit	Occupational First Aid Kit
Disposable wound cleaning swabs (1% cetrimide BP)	10	25
Povidone-iodine 10% solution	15ml	2 x 15ml
Cotton tipped applicators	–	50
Disposable latex gloves	5 pairs	10prs
Disposable eye wash (holding at least 30ml)	–	5
Approved resuscitation face mask*	1	1
Scissors (sharp/blunt points)	1	1
Splinter forceps	–	1
Splinter probe/remover	1	1
70% alcohol swabs (ethanol or methanol) (for instrument disinfection)	10	25
Safety pins	5	10
Recording book and pencil for recording injury and illness first aid	1	1
Leaflet, First Aid Instructions (issued by WorkCover Corporation)	1	1
BURN MODULE		
Leaflet, First Aid – Burns (issued by WorkCover Corporation)	1 set	
Assorted size burns dressings (according to the specific hazards of the workplace)	6	
EYE MODULE		
Leaflet, First Aid – Eye Injuries (issued by WorkCover Corporation)	1 set	
Disposable eye wash (holding at least 30 ml)	4	
Surgical spears (stroll wedges) on applicator sticks (disposable packets of 2)	4 packets	
Sterile eye pads (individually wrapped)	4	
Non-stretch adhesive tape (hypo-allergenic 125 mm wide)	1 roll	
Absorbent tissues	Travel pack of 10	

OHSW ACT 1986

Occupational Health, Safety and Welfare Act pp 18, 20, 21

OHSW ACT 1986

Occupational Health, Safety and Welfare Act

OHSW

Approved Code of Practice Occupational Health and First Aid in the Workplace

16.1.3 Container

The first aid box must be:

- clean
- sealable to protect the sterile contents
- large enough to include all contents required, preferably with separate compartments for each item
- able to be carried by a handle
- clearly marked 'first aid' in accordance with Australian Standards
- provided with an appendix on the inside of the lid that includes emergency numbers, phone extensions for first aid personnel if applicable and a complete list of the contents of the kit

16.1.4 Location

The kit/s must be in an obvious and easily accessible location at all times. The kit would be more useful if it were of the wall mountable type as is common practice, so it is always in the same place. However a mobile kit meets legal requirements.

All staff must have a first aid kit within 100m of their regular work position. At least one kit must be on each alternate level of a multi-level kitchen.

16.1.5 First aid rooms

A first aid room is only required for large kitchens when over 400 employees are operating at one time. The room, as well as its contents, is the responsibility of a staff member who has the approved Occupational First Aid certificate.

The first aid room should be situated for convenient access for emergency transportation as well as being easily accessed within the workplace. The area must have a floor space greater than 14 square metres, be well illuminated and ventilated. There must be easily accessible toilet facilities. The room must be clearly identified with signage.

Within the first aid room there are some essential requirements:

- An Occupational First Aid Kit.
- Hot and cold water supply into both a sink and wash basin.
- Soap, nail brush and disposable paper towels (other cleaning utensils).
- Work bench and/or dressing trolley.
- A lockable cupboard for storage of medicines.
- Another cupboard for storing dressings, utensils and linen.
- A bin appropriate for used dressings with a disposable lining.
- Power points.

- A couch with bedding.
- At least one armchair, two upright chairs and a table/desk.
- Telephone and /or emergency call system.
- At least one portable stretcher.
- Record taking and storing capability.

OHSW ACT 1986

Occupational Health, Safety and Welfare Act

16.1.6 Signage

Refer section 13, page 72.

OHSW

Approved Code of Practice Occupational Health and First Aid in the Workplace

16.2 Training

16.2.1 How many staff?

There must always be at least one staff member who has a current Senior First Aid certificate. An Occupational First Aid certificate is only required if the employee is responsible for the first aid room.

The number of staff who have a first aid certificate increases relative to the number of people on a shift.

Number of people on one shift	1-50	51-100	101-200	More than 200 employees
First aid people required	1	2	3	1 more first aid staff required every 100 people

These are the minimum required, there can be more employees with first aid training if wanted. The more there are the safer the other staff will be.

16.2.2 What is required?

To meet regulations, staff must attend first aid courses approved by the South Australian Occupational Health and Safety Commission.

SENIOR FIRST AID CERTIFICATE

Course length is 18+ hours

The course will teach participants to:

- understand any emergency first aid situation
- follow the correct procedure to assist the injured
- summon assistance required e.g. ambulance
- correctly assess a sick or injured person and make the appropriate referral procedures
- maintain the records of all treatment given
- use the contents of the approved first aid kit

OHSW ACT 1986

Occupational Health, Safety and Welfare Act

- practice so that there is the minimum cross-infection possible
- effectively demonstrate the cardio-pulmonary resuscitation (CPR) procedures.

OCCUPATIONAL FIRST AID CERTIFICATE

OHSW

Approved Code of Practice Occupational Health and First Aid in the Workplace

Applicants must hold a current approved senior first aid certificate. Course length is 30+ hours

The course will teach participants:

- the topics of the senior first aid certificate in greater detail
- how to use bag or mask units, oxygen cylinders, regulators, flow-meters and positive pressure resuscitation equipment to assist with CPR
- how to safely handle and lift heavy objects
- how to prepare and dress a wound
- the basic idea of asepsis and antisepsis, including the use of rubber gloves
- how to identify the difference between a minor and a major wound.
- state legislation, regulations, standards and codes of practice in regards to the workplace
- the legal and ethical importance of confidentiality of the records of personnel.

FIRST AID