Requirements for the Establishment, Construction Fit out of Food Premises



### 1. Introduction

With regard to new food premises or alterations to existing food premises, Council requires compliance *with National Food Safety Standards 3.2.3 Food Premises & Equipment.* This standard outlines the mandatory requirements for food premises, fixtures, fittings, equipment & food transport vehicles in Australia. This Food Safety Standard applies to all food businesses in Australia and the NSW Food Act 2003 requires compliance in NSW. The food premises cannot open or be used until the Standard is met.

If the food business complies with these requirements they will find it easier to meet the operational requirements of *Food Safety Standard 3.2.2 Food Safety Practices & General Requirements*.

Guideline criteria for construction & fit out of new or altered or renovated food premises in the food services, retail & small scale manufactures are contained in *Australian Standard AS 4674-2004 Design, Construction & Fitout of Food Premises,* under headings that correspond to the following divisions of National Food Safety Standards 3.2.3.

- Design & Construction of Food Premises.
- Floors, Walls & Ceilings.
- > Fixtures, Fitting & Equipment

Council will require compliance with Australian Standards AS4674-2004. This establishes guidelines that are outlined generally in the attached information.

For detailed guidelines information copies of Australian Standards AS4674-2004 may be purchased from:

#### **Standards Australia**

Internet: www.standards.org.au

Phone: **1300 654645.** 

Address: 475 Hunter Street Newcastle NSW

Australian Standard 4674-2004 available free of charge for viewing only at all Newcastle Libraries on the "NSW Net Computer".

Food Safety Standards 3.2.3 can be purchased from:

Food Standards Australia & New Zealand (FSANZ) phone 02 6271 2241.

www.foodstandards.gov.au Advice line: 1300 652 166

Address: PO BOX 7186 Canberra BC ACT 2610

## 2. Design & Construction of Food Premises

The design of the food premises. Consider the food flow pattern to establish adequate space & operational efficiencies. Take into account the amount of storage space need for dry goods, food containers, fruit & vegetable storage. The need for refrigeration storage should be assessed & provided for. Sufficient areas should be set aside for clothing & personal effects of staff (a change room may be required), storage of garbage, waste recycling, cleaning materials & chemicals.

The premises must be pest proof. Insect & pest proofing will include mesh screening to prevent access & the use of insect devices that should be placed away from work areas where food may be contaminated. Holes & inaccessible spaces to be sealed.

Adequate supply of potable water must be provided. Non potable water can be used for certain uses that are unlikely to contaminate food or food surfaces.

### Effective disposal of sewage & waste water.

If a grease arrestor is required it shall be located away from food areas. Access to the arrestor is to be external to food areas.

Enclosure of garbage & recyclable matter. Storage areas are to be cleaned & pest proof. External ground storage areas are to be paved, graded, drained & provided with a hose tap to facilitate cleaning. Garbage room floors are to be impervious, coved graded & drained. Walls to be smooth impervious surfaces. Ventilation, pest proofing & a hose tap to be provided.



Picture 1: Separate area for storage of garbage.

Ventilation & Lighting. Natural or mechanical ventilation is to be provided in accordance with the Building Code of Australia. Extraction ventilation system are to be provided to remove cooked fumes, odours, heat & steam in accordance with AS 1668.1 & 1668.2, when kilowatts from cooking equipment exceeds 8Kw for electrical appliances or 29 MJ/h for a gas appliance. Mechanical exhaust should also be installed above dishwasher to reduce condensation on walls and ceilings.



Picture 2: Mechanical exhaust system.

Australian Standards for lighting are to be adhered to. Room light fittings & equipment light/heat fittings are to be of a design that is easy to clean, flush fitting with the ceiling, provided with covers to contain globes or tubes if they shatter & will not harbour dirt or insects.



Picture 3: Light fitting with diffuser cover



Picture 4: Light fitting recessed & flush to ceiling

# 3. Floors, Walls & Ceilings

Floors must be able to be effectively cleaned, not able to absorb grease, not allowing ponding of water & not provide harbourage for pests. These requirements apply to areas used for food handling, cleaning sanitising & personal hygiene. Areas where members of the public have access, such as dining rooms & drinking areas, are excluded from this requirement.

**Flooring.** Flooring is to consist of material that is appropriate for the activities conducted & includes epoxy jointed ceramic & quarry tiles, heat welded vinyl sheeting & epoxy resin for food preparation areas & general use. Refer to table 3.1 in AS 4674-2004 for suitability of flooring finishes for food premises areas. Floors draining to a floor waste are to be graded. Steel trowelled case hardened concrete is suitable for chillers, freezers & storage areas. Vinyl tiles can be used in food storerooms that are not wet areas.



Picture 5: Floor waste

**Coving.** In all instances where floors are to be flushed with water, the intersection of walls & plinths are to be coved to a minimum radius of 25mm. Coving is to be an integral part of the floor, plinth & wall surface finish. Where vinyl sheeting is used to form a cove, a preformed coving fillet support is to be used. Diagrams showing coving methods are published in AS4674-2004.



Picture 6: Epoxy coving on a coolroom floor



Picture 7: Stainless Steel Coving

**Plinths.** Plinths finishes are to meet the same requirements as the floors and shall be 75mm in height, impervious, solid, rounded at all exposed edges & coved.

**Walls & ceilings.** Wall & ceilings must be provided where it is necessary to protect the food. They are to be constructed of materials appropriate for the activities being conducted. *i.e. tiles in wet areas, stainless steel in hot areas*, see AS 4674-2004 table 3.2 for the suitability of wall finishes for food premises areas. Walls & ceiling are to be sealed to prevent access to dirt, dust & pests & able to be easily cleaned.

**Wall construction.** Walls of all food premises are to be of solid construction to prevent harbourage of vermin in voids & cavities.

**Wall finish.** In food preparation areas & open food (unprotected food) areas surfacing materials shall be glazed ceramic tiles, stainless steel, welded vinyl sheeting (not in high heat or impact areas) & adhered directly to the wall.

Skirting boards, picture rails, open joint spaces, fixing screws, cracks & crevices are not permitted. In food storerooms that are not wet areas, painted plaster walls or painted brickwork may be used.

**Ceilings.** Ceilings in food preparation areas is to be painted plaster, trowelled cement or smooth concrete finished with impervious sealing material. Drop in panel ceilings are not permitted in food preparation or open food (unprotected food) areas.

**Treatment of water, gas pipes, conduits, electrical wiring.** These are to be concealed in floors, walls, plinths & ceilings, penetration & openings are to be sealed. Alternatively in existing buildings they can be fixed on brackets to maintain 25mm clearance from horizontal & vertical services. A diagram in AS 4674-2004 shows the requirements.

# 4. Fixtures, Fittings & Equipment

Fixtures, fittings & equipment adequate for their intended use & must be designed, constructed & installed in such a way as to be easily & effectively cleaned, & to permit easy cleaning of adjacent areas.

### Cleaning & sanitising of equipment.

The minimum requirement (for premises selling pre-packaged food &/or uncut fruit & vegetables) is a single sink. For other food premises a double bowl sink must be provided for cleaning food contact equipment. A double pot sink shall be provided for larger equipment. Where all food equipment can be washed/ sanitised in a machine a single bowl sink will suffice.



Picture 8: Wash-up area

Vegetable preparation sinks or a food immersion sinks may be needed depending on food prepared. In all food premises where hands are likely to be a source of contamination, a hand basin is also to be provided (see below).

A cleaners sink is to be provided for the cleansing of cleaning equipment separate to any other food related sink. Alternately a hot & cold tap connection can be used in conjunction with a floor waste for disposal of liquid waste outside areas where open food is handled.

**Dishwasher/** glass washer. Are recommended for all premises where reusable eating and drinking utensils are supplied, to meeting requirements for sanitation. Machines used for sanitising are



Picture 9: Cleaners sink

to operate on the sanitising cycle at the manufacturers recommended temperature & time. Machines designed for the use of chemical sanitisers are to operate at the manufacturers recommended temperature.

**Sinks are to be provided with hot water.** Hot water at a temperature of 45°C for cleaning and 80°C for sanitising, (sanitising is required for eating & drinking utensils & equipment & utensils that contact food & that are likely to cause contamination).

**Food contact surfaces.** Food contact surfaces must be able to be easily cleaned, unable to absorb grease & made of materials that will not contaminate the food. i.e. stainless steel

Hand washing facilities. Hand wash basins must be located where they can be easily accessed in areas where food handlers work. (eg no more than 5 metres from food preparation areas, open food areas & utensils & equipment washing areas) & also immediately adjacent to toilets. They must be permanent fixtures connected to a supply of

warm running water through a hot water & cold water mixing tap and be of hands free operation. They must be of a size that allows easy hand washing & be clearly designated for the sole purpose of washing hands, arms & face, such as "handwashing only" sign. Single use paper or cloth towel dispenser is to be provided.





Picture 10 & 11: Hands free operated hand wash basin with paper towel and liquid soap dispenser.

**Refrigerated counter, cupboards, cabinets, bar.** Construction material & specific requirements for fixtures, fittings & equipment are shown in AS4674-2004 table 4.3 & 4.4. They shall be designed & constructed of metal, plastic or sealed timber sheeting or other impervious material to ensure ease of cleaning.

**Equipment.** All equipment shall be either moveable for cleaning or built into walls & completely vermin proofed or butted against walls & sealed or installed with clearances as outlined in AS4674-2004.



Picture 12: Sealing bench tops to wall.



Picture 13: Stainless steel splashback sealed to a tiled wall surface.

Equipment shall be supported on wheels or casters, 150mm legs, plinths or solid metal or capped tubular steel brackets or framework.





Picture 14 &15: Equipment elevated 150mm to permit cleaning underneath.

**Storage Areas.** Clothing lockers must be away from food areas & the need for staff change rooms must be assessed.

**Toilets.** Toilets for both staff & customers must be provided in accordance with the Building Code of Australia (BCA), toilets are to be separated from food areas by intervening ventilated space (eg airlock) fitted with self closing doors. Customers/public toilets are not to be accessed through areas where open food is handled.



Picture 16: Toilets separated by air lock with selfclosing doors