



## Building Construction Guidelines for Dairy Manufacturers

This Note aims to provide manufacturers with specific and practical information that will help in planning and developing premises that are fit for the purpose of producing dairy products. The Note is applicable to both those new to the industry and also manufacturers wanting to upgrade or expand their existing premises.

### Requirements for domestic manufacturers

Current regulation for Victorian dairy manufacturers making product for domestic (i.e. not export) sale is very broad on mandated requirements for premises design and construction. It is defined in the Code of Practice for Dairy Food Safety 2002<sup>(1)</sup> (CoP) as: "Dairy manufacturing premises and equipment must be designed, situated, constructed and maintained in a manner that prevents the introduction of hazards, contaminants and the cross-contamination of finished product and allows adequate cleaning and sanitation". This deliberately non-prescriptive approach allows for new and innovative development within the industry, with the onus being on the manufacturer to demonstrate how they comply with the CoP.

Under the CoP, plans for any new or significantly altered manufacturing site must be submitted for review by Dairy Food Safety Victoria (DFS) prior to construction. This allows for any possible oversight in complying with regulations by the manufacturer to be identified at an early stage, and could save costly modifications having to be made at some later date.

### Requirements for export registered premises

For manufacturers intending to make product for export, there are significant additional criteria under the Australian Quarantine and Inspection Service (AQIS) regulations that must be met. These are documented in the Export Control (Milk and Milk Products) Orders 2005<sup>(2)</sup>. Application for approval to become a *registered establishment* needs to be sought and granted. The following sections of these Orders relate to the level of detail required in plans and specifications for new or altered premises:

- Schedule 1 (Registration), Part 1 – Plans and specifications, *Division I – Application for registration*, and

#### *Division II – Alterations and additions.*

Further to this, the clauses listing specific structural requirements are found in:

- Schedule 3, Structural requirements, Part 1 – General Requirements:

#### *Division I – Premises, equipment and vehicles*

- Provision of facilities and equipment
- Construction of premises

- Construction must comply with plans and specifications
- Immediate surrounds
- Floors
- Walls and ceilings
- Fixtures, fittings and equipment — general requirement
- Construction of fixtures, fittings and equipment
- Food carrying compartments, container system units and vehicles
- Measuring devices
- Storage facilities for items other than milk and milk products



#### *Division II – Cleaning and sanitising facilities*

- Cleaning and sanitising premises and equipment
- Hand washing facilities

#### *Division III – Amenities*

- Amenities

#### *Division IV – Essential services*

- General requirement
- Effluent and waste
- Facilities for storage of waste and inedible material
- Lighting
- Ventilation
- Water Supply

These AQIS schedules provide a sound basis for the planning and constructing of a dairy processing operation for both domestic and export manufacturers.

### Further information sources

The Guidelines For Food Safety: Dairy Food Manufacturers 2006<sup>(3)</sup>, developed by Dairy Food

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Safety Victoria (DFSV), provides an overview on what should be considered in the construction of dairy premises. These are a useful guide, although they are not as detailed as the mandatory requirements for export registered premises mentioned above. Topics include:

- General construction
- Internal structure and fittings
- Access points to the external environment
- Drains
- Ventilation
- Water
- Lighting
- Personal hygiene facilities and toilets



**The New Zealand Food Safety Authority's Operational Guideline: Design and Construction of Dairy Premises and Equipment<sup>(4)</sup>, is a useful reference, and goes into even greater detail on what should be considered when building or altering a dairy manufacturing premise.**

In addition to the planning / construction guidance material and regulations already outlined, further consideration should be given to the types of product(s) that are intended to be manufactured. For example, a dried milk powder manufacturing or blending operation will have a completely different setup for effective cleaning procedures (minimal water usage) as compared to cheese manufacturing, which requires extensive drainage and surfaces impervious to moisture. In all cases, the design and construction undertaken needs to be 'fit for purpose'.

Although no longer a regulatory document, the Australian Code of Practice for Dairy Factories (1991) produced by the Department of Primary Industry<sup>(5)</sup> is still a very useful and practical guide, particularly for those new to the industry. It contains specific details on topics such as the design and dimensions for the various components that comprise a production facility, recommended materials to use in construction, and a section on equipment and ancillary services.

### Summary

There are specific planning and construction licence requirements that dairy manufacturers must comply with in

Victoria, however significant differences exist between those for export and domestic registered premises. By utilising some of the additional guidance material or suggested references, manufacturers should be able to plan and construct a premise that will meet all requirements and be 'fit for purpose' for many years.

### References

1. Dairy Food Safety Victoria (2002) 'Code of Practice for Dairy Food Safety. Section 5.2.4: Dairy Manufacturing Premises and Equipment' Available from: [www.dairysafe.vic.gov.au/pdf/DFSV\\_CodeOfPractice2002.pdf](http://www.dairysafe.vic.gov.au/pdf/DFSV_CodeOfPractice2002.pdf)
2. Australian Quarantine & Inspection Service (AQIS, 2005) 'Export Control (Milk and Milk Products) Orders 2005. Schedule 1, Registration' Available from: [www.comlaw.gov.au/comlaw/management.nsf/lookupindexpagesbyid/IP200510269?OpenDocument](http://www.comlaw.gov.au/comlaw/management.nsf/lookupindexpagesbyid/IP200510269?OpenDocument)
3. Dairy Food Safety Victoria (2006) 'Guidelines for Food Safety: Dairy Food Manufacturers. Section 6: Premises Construction' Available from: [www.dairysafe.vic.gov.au/pdf/ManufacturingGuidelines.pdf](http://www.dairysafe.vic.gov.au/pdf/ManufacturingGuidelines.pdf)
4. New Zealand Food Safety Authority (2006). Operational Guideline: Design and Construction of Dairy Premises and Equipment. Available from: [www.nzfsa.govt.nz/dairy/publications/guidelines/designandconstructionpremeqpt.pdf](http://www.nzfsa.govt.nz/dairy/publications/guidelines/designandconstructionpremeqpt.pdf)
5. Department of Primary Industry (1991) (superseded) 'Australian Code of Practice for Dairy Factories' April 1991. Available from: [www.dairysafe.vic.gov.au](http://www.dairysafe.vic.gov.au) on the Documents page under Historical Documents

Further information:

Other Dairy Food Safety Notes are available from [www.dairysafe.vic.gov.au](http://www.dairysafe.vic.gov.au)

Or Contact:

Dairy Food Safety Victoria

[info@dairysafe.vic.gov.au](mailto:info@dairysafe.vic.gov.au)

Tel (03) 9810 5900

PO Box 840

Hawthorn VIC 3122

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