

**Ministry of Agriculture and Forestry
P O Box 2526, Wellington, New Zealand**

MAF Food: Dairy & Plants

Circular no. 41

Dairy Industry Regulations 1990

Milk Cooling

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Issue of Circular

Regulation 59 of the *Dairy Industry Regulations 1990* allows the Director-General of the Ministry of Agriculture and Forestry to issue Circulars setting out criteria for matters which must be approved by, or done to the satisfaction of, the Director-General, pursuant to the *Dairy Industry Regulations 1990*.

This Circular, no. 41, containing 'MAF Standard D104.1, "Milk Cooling,"' is issued in accordance with that regulation 59.

This Circular, no. 41, takes effect on 23 December 1999.



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23/12/99

(Signed under authority delegated by the Director-General of MAF, pursuant to regulation 59 of the Dairy Industry Regulations 1990.)

Contents

- 1 Background
- 2 Summary
- 3 Outcome
- 4 Effective changes
- 5 Implementation
- 6 Effect on compliance costs

MAF Standard D104.1, “Milk Cooling”

- 1.0 SCOPE
- 2.0 PURPOSE
- 3.0 OUTCOME
- 4.0 INTERRELATED REQUIREMENTS
- 5.0 ADDITIONAL RESOURCES
- 6.0 DEFINITIONS
- 7.0 REQUIREMENTS
- 8.0 VERIFICATION
 - 8.1 Criteria
 - 8.2 Decision
 - 8.3 Result
- 9.0 VERSION CONTROL

APPENDICES

One: ACCEPTABLE CRITERIA

- 1.0 Filtering
- 2.0 Cooling
- 3.0 Non-conformance and non-compliance
- 4.0 Records and reporting

Two: IMPORTING COUNTRY REQUIREMENTS

1 Background

The MAF Standard on Milk Cooling was developed to:

- outline regulatory requirements specified in New Zealand dairy legislation for the filtering and cooling of raw milk after milking,
- describe acceptable criteria (means for satisfying MAF that the requirements are being achieved), and
- outline relevant importing country requirements.

2 Summary

This Standard specifies requirements relating to the filtering and cooling of raw milk after milking, which must be managed by farm dairy occupiers, to ensure that the raw milk produced is satisfactory for the manufacture of dairy products.

Appendix One outlines acceptable criteria for demonstrating that the outcomes in the Standard are achieved, including:

- milk is filtered and cooled immediately after milking;
- filtered milk is cooled to 7°C within 3 hours of completion of milking;
- cooled milk is kept at or below 7°C until it is collected, or until the next milking;
- adequate milk cooling facilities are used, which ensure that milk is cooled as required;
- the milking of some of the herd is not delayed in order to delay the time of the completion of milking;
- milk that is non-compliant or unsatisfactory for processing is disposed of according to MAF Standard D108, “Non-Conforming Dairy Produce and Products;” and
- relevant records are kept and information reported to MAF/the TPA.

Proposals for alternative criteria will be approved by MAF, provided it can be demonstrated to MAF’s satisfaction that the required outcomes will be achieved.

Appendix Two outlines importing country requirements relating to the cooling of milk.

3 Outcome

Directly after milking, raw milk is filtered and cooled down to 7° C or below within 3 hours of completion of milking and kept at 7° C or below until collected, or until the next milking, in compliance with regulations 6, 7(m) and 7(n) of the *Dairy Industry Regulations 1990*.

The disposition of raw milk that is above the required temperature, and corrective action to ensure future compliance, is determined in accordance with a MAF-approved Product Safety Programme, in compliance with regulation 7(o) of the *Dairy Industry Regulations 1990*.

Where MAF provides official assurances to international competent authorities, the relevant importing country requirements are demonstrated to be met.

4 Effective changes

This Standard will introduce the following changes to the previously existing situation.

- The existing regulatory requirements are specifically stated.
- Appropriate provisions covering farm dairies and, where appropriate, raw milk transport, must be made in the PSP.
- Verification by a MAF Compliance or a MAF-approved TPA.

5 Implementation

This Standard will apply from 1 June 2000.

For new PSPs, this Standard will apply from 1 June 2000. To allow the orderly evaluation and approval of previously approved PSPs, any PSP approved under the previous regulatory requirements shall be deemed to be approved for a period of 12 months after the date of issue.

Implementation of the ORM regulatory system will commence in February 2000 and movement of parties to the ORM system will be based on application. Consequently, this Standard has been written to enable continuation of the evaluation and verification of PSPs under the existing system and under the ORM system. During this transition period, PSPs will continue to be evaluated and verified by MAF Compliance & Investigation Group. When the party moves to the ORM system, the PSP will be evaluated and verified by approved individuals employed by an approved TPA. These changes are indicated in the Standard by the use of "MAF/the TPA" in appropriate places.

6 Effect on compliance costs

No additional compliance costs are anticipated.

MAF Standard D104.1, "Milk Cooling"

1.0 SCOPE

This Standard contains the outcomes for the filtering and cooling of raw milk after milking, and the keeping of relevant records. All farm dairy occupiers managing milking animals producing milk intended for processing into dairy products, must comply with this Standard.

2.0 PURPOSE

This Standard sets out the outcomes that are specified in the *Dairy Industry Regulations 1990* relating to the filtering and cooling of raw milk after milking, that must be managed by farm dairy occupiers to ensure that the raw milk produced is satisfactory for the manufacture of dairy products.

The acceptable criteria outlined in Appendix One of this Standard were developed in consultation with industry to establish clear rules for judging whether or not a proposed PSP is satisfactory, and to assist parties to achieve the outcomes described in the Standard. Proposals for alternative criteria will be approved by MAF, provided it can be demonstrated to MAF's satisfaction that the required outcomes will be achieved.

Appendix Two of this Standard outlines importing country requirements relating to official assurances provided by MAF concerning the filtering and cooling of raw milk intended for processing into dairy products.

3.0 OUTCOME

Directly after milking, raw milk is filtered and cooled down to 7°C or below within 3 hours of completion of milking and kept at 7°C or below until collected, or until the next milking, in compliance with regulations 6, 7(m) and 7(n) of the *Dairy Industry Regulations 1990*.

The disposition of raw milk that is above the required temperature, and corrective action to ensure future compliance, is determined in accordance with a MAF-approved Product Safety Programme, in compliance with regulation 7(o) of the *Dairy Industry Regulations 1990*.

Where MAF provides official assurances to international competent authorities, the relevant importing country requirements are demonstrated to be met.

4.0 INTERRELATED REQUIREMENTS

The following standards must be read in conjunction with this Standard.

- MAF Standard D101, “Product Safety Programmes.” Dairy and Plant Products Group, Food Assurance Authority, New Zealand Ministry of Agriculture and Forestry.
- MAF Standard D102, “Product Safety Programme Reporting Requirements.” Dairy and Plant Products Group, Food Assurance Authority, New Zealand Ministry of Agriculture and Forestry.
- MAF Standard D108, “Non-Conforming Dairy Produce and Products.” Dairy and Plant Products Group, Food Assurance Authority, New Zealand Ministry of Agriculture and Forestry.
- MAF Standard MRD-Stan 12, “Acceptance Standards for Raw Milk.” Regulatory Authority, New Zealand Ministry of Agriculture and Forestry, 1997.

5.0 ADDITIONAL RESOURCES

The following documents are useful resources.

- *Dairy Products Safe and True.* Dairy and Plant Products Group, Food Assurance Authority, New Zealand Ministry of Agriculture and Forestry, 1999. World Wide Web address: www.maf.govt.nz/Dairy/
- NZCP 1, “Farm Dairy Code of Practice,” third edition. New Zealand Dairy Board, 1998.

6.0 DEFINITIONS

These definitions must be read in conjunction with the interpretations in the *Dairy Industry Act 1952* and the *Dairy Industry Regulations 1990*.

MAF Food: Dairy & Plant Products Group definitions of terms can be found in their “Glossary of Terms,” available on the Dairy & Plants website (www.maf.govt.nz/Dairy/).

Accountable person – The person named in a MAF-approved PSP who is responsible for all operations covered by the PSP, and for ensuring that those operations comply with regulatory requirements.

Completion of milking – The time when milking of the herd finished.

Dairy produce – Milk, cream, butter, cheese, and any other product of milk or cream.

Dairy product – Dairy produce intended for sale in, or export from, New Zealand for human consumption; and

- (a) includes raw milk or cream intended for sale in New Zealand for human consumption as raw milk or cream; but
- (b) does not include raw milk or cream intended to be processed before sale in New Zealand for human consumption.

Farm dairy – Includes a dairy where milking animals are milked; any stockyard, milking yard, stable stall or shed associated with a farm dairy; and any dairy associated with a farm dairy where milk extracted in the farm dairy is collected, filtered, deposited, separated, cooled or stored, or treated or stabilised to prepare for transport. It does not include a place (not being a dairy where milking animals are milked) where milk is processed or treated, other than by being collected, filtered, separated, stirred, or cooled, or treated or stabilised to prepare for transport.

Inspector – A person appointed under section 4 of the *Dairy Industry Act 1952* with powers under that Act, the *Animals Act 1967* and the *Food Act 1981*. Includes the Director-General of MAF.

MAF Compliance – The Compliance and Investigation Group of MAF Food, reporting to the Director, Compliance and Investigation Group.

MAF Food – The Food Assurance Authority of the Ministry of Agriculture and Forestry.

MAF Food: Dairy & Plants – The Dairy and Plant Products Group of MAF Food, reporting to the Director, Dairy and Plant Products.

Milk – The milk of cows, goats and sheep.

Non-compliance – Any failure to comply with regulatory requirements.

Product Safety Programme (PSP) – A programme of conditions, processes, procedures, measures, and standards to be complied with, performed, undertaken, taken, or met in relation to:

- (a) any process or activity related to dairy produce, ingredients used in the manufacture of dairy products, or both; and
 - (b) sampling, examination, inspection, and testing, or any of those actions, relating to any such process or activity; and
 - (c) the recording and inspection(by persons with qualifications and experience approved by the Director-General for the purpose) of information relating to any such action;
- and (without limiting the generality of the foregoing) may include conditions, processes, procedures, measures, or standards relating to the production, manufacture, storage, or transport of dairy produce.

Third Party Agency (TPA) – Organisation approved by MAF to carry out evaluation and/or verification services.

7.0 REQUIREMENTS

Farm dairy occupiers must operate in accordance with a MAF-approved Product Safety Programme which documents procedures:

- to ensure that, directly after milking, raw milk is filtered, and
 - immediately cooled, and
 - cooled down to 7° C or below within 3 hours of completion of milking, and
 - kept at or below 7° C until collected, or until the next milking;
- to be taken for raw milk that is above the required temperature, and
- for keeping records relevant to the above requirements.

8.0 VERIFICATION

Verification of compliance with this Standard is undertaken by MAF or a MAF-approved TPA as part of a PSP assessment.

Verification of compliance with the temperature requirements of this Standard will occur every time milk is collected from the farm dairy.

8.1 Criteria

The criteria for assessing compliance with this Standard are as follows:

- The means to deliver the requirements of this Standard are documented in a MAF-approved PSP.
- The party operates in accordance with that MAF-approved PSP.

8.2 Decision

The party is non-compliant if one or more of the criteria for assessing compliance is not met.

8.3 Result

8.3.1 Compliant parties

Compliant parties operating in accordance with MAF-approved PSPs are entitled to:

- produce milk or cream intended for the manufacture of dairy products,
- transport or store dairy produce, and/or
- manufacture, transport, or store dairy products.

8.3.2 Non-compliant parties

Non-compliance with a MAF-approved Product Safety Programme (including selling or exporting dairy products not manufactured in accordance with an approved PSP) constitutes an offence under regulation 49 of the *Dairy Industry Regulations 1990*.

If a party does not operate in accordance with an approved PSP,

- an Order may be issued by a MAF Inspector to remedy any defects,
- export certification and/or use of any MAF marks may be suspended,
- approval of the PSP may be withdrawn, and/or
- prosecution for offences may occur.

9.0 VERSION CONTROL

| Version | Date | Status | By | Approved |
|---------|------------------|--------------------------------|---------------------------------------|----------|
| D104.1 | 23 December 1999 | Promulgated by Circular no. 41 | Director, MAF Food: Dairy & Plants | |

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Appendix One

ACCEPTABLE CRITERIA

Following are criteria by which a Product Safety Programme may be judged to satisfactorily achieve the requirements described in section 7 of this Standard. A Product Safety Programme which includes procedures for ensuring that each of these criteria is satisfied, and meets all other relevant PSP requirements, will be approved by MAF.

Proposals for alternative criteria may be approved by MAF, provided it can be demonstrated to MAF's satisfaction that the required outcomes will be achieved. A guide to the information required in these proposals and the procedures used by MAF to assess proposals can be obtained from MAF Food.

1.0 Filtering

Directly after milking, raw milk is filtered through a filter of suitable size to ensure that the milk meets dairy company milk reception standards for sediment.

Adequate milk filtering facilities are used, which enable milk to be filtered prior to cooling.

2.0 Cooling

After filtering, milk is:

- (a) immediately passed through a cooling system;
- (b) cooled to 7° C or below within 3 hours of the completion of milking; and
- (c) kept at or below 7° C until it is collected, or until the next milking.

The only exception to (b) and (c) is when milk is used immediately, on site, for manufacturing purposes. In that case, the milk undergoes heat treatment equivalent to pasteurisation within 3 hours of the completion of milking.

Adequate milk cooling facilities are used, which enable milk to be cooled as required.

The milking of some of the herd is not delayed in order to delay the time of the completion of milking.

Where milk is collected less than three hours after the completion of milking, appropriate procedures are undertaken to verify that the temperature requirements of this Standard are met.

3.0 Non-conformance and non-compliance

Milk that is:

- found to be unsatisfactory for processing into dairy products
- not cooled in accordance with this Standard,
- not filtered in accordance with this Standard, or

is disposed of in accordance with MAF Standard D108, “Non-Conforming Dairy Produce,” and the purchaser advised of the non-compliance in a timely manner.

Appropriate corrective actions are undertaken to ensure future compliance.

4.0 Records and reporting

Relevant records are kept in accordance with MAF Standard D101, “Product Safety Programmes.”

The farm dairy occupier or the milk transporter advises MAF/the TPA of the non-compliance, in accordance with MAF Standard D102, “Product Safety Programme Reporting Requirements”.

Appendix Two

IMPORTING COUNTRY REQUIREMENTS

It is the responsibility of exporters to identify and comply with all importing country requirements; non-compliance is at their commercial risk.

Where MAF provides official assurances to competent authorities of importing countries, the statements to which MAF attests must be verifiable. Relevant requirements are described in the MAF Standard on dairy export certification.

At this time, MAF is not aware of any importing country requirements involving official assurances which are additional to the requirements of this Standard.