

There have been a couple of minor changes from the proposed regulations which have been highlighted in yellow;

5.15 New Milk Cooling Standards

(1) The following raw milk cooling standards apply as of the applicable commencement date in clause 5.15.1 Implementation Date.

(2) Raw milk must:

- a) be cooled to 10°C or below within four hours of the commencement of milking; and
 - b) be cooled to 6°C or below within the sooner of:
 - i) six hours from the commencement of milking, or
 - ii) two hours from the completion of milking; and
 - c) be held at or below 6°C without freezing until collection or the next milking; and
 - d) must not exceed 10°C during subsequent milkings.
- (3) In situations where there is continuous or extended milking, such as automated milking systems, the milk must enter the bulk milk tank at 6°C or below. "Continuous or extended milking" is defined as milking for six hours or longer from the time that milk first enters any bulk milk tank.

5.15.1 Implementation Date

(1) From 1 August 2016 farm dairies that are:

a) new; or

b) undergoing any significant change to the secondary milk cooling system

must meet the milk cooling requirements set out in clause 5.15(2).

(2) From 1 June 2018 all farm dairies must meet the milk cooling requirements set out in clause 5.15(2).

(3) Consideration should be given to improving the cooling performance of existing equipment, and to technology options that improve existing equipment performance. New technology options must meet the requirements of this Code directly and be acceptable to the RMP Operator/Dairy Company.

(4) It is recommended that Farm Dairy Operators contemplating an upgrade to primary cooling or secondary bulk milk tank refrigeration discuss options with their dairy company, farm dairy assessor, refrigeration supplier, or the Energy Efficiency and Conservation Authority (EECA) before committing capital.

5.16 Milk Cooling Performance Monitoring

(1) From 1 August 2016 the periodic confirmation of milk cooling performance must be undertaken to confirm that the milk cooling system is meeting the requirements under clause 5.14 Milk Cooling, or clause 5.15 New Milk Cooling as follows:

a) Farm Dairy Operators must have records to confirm that milk cooling requirements are being met to confirm the capability of milk cooling equipment. Milk cooling performance should be monitored monthly, but as a minimum must be monitored and recorded:

i) about the time of expected peak milk production; and

ii) in February.

b) Each performance check must cover at least two consecutive milking's, and the records must include:

- i) the temperature of milk in each bulk milk tank immediately prior to the start of milking (if there is any);

ii) the time that milking starts;

iii) the time that milking is completed;

iv) the temperature of the milk in the bulk milk tank at the completion of milking; and

v) the time that the milk is confirmed to meet the requirements of clause 5.14 Milk Cooling, or clause 5.15(2)(a) and (b) New Milk Cooling, whichever is applicable.

(2) Temperature measurements and recording can be accomplished using:

a) an electronic monitoring system;

b) a chart recorder;

c) a "tiny tag" or similar temperature logging device;

d) manual measurements using an electronic thermometer (non-glass); or

e) any other equivalent method.

(3) The accuracy of the temperature measurement device must be known as the data collected is an official record.

5.16.1 Failure to meet milk cooling requirements

(1) Action must be taken to correct milk cooling performance should the information collected show that milk is not being cooled within the required parameters. In such cases the milk cooling performance checks described above must be repeated to confirm compliance with the milk cooling requirements. Where any equipment upgrade is contemplated, it is recommended that the farm dairy assessor or dairy company is consulted before committing to capital expenditure.

5.16.2 Electronic monitoring systems

(1) Where electronic monitoring systems are installed it is recommended that such systems be capable of holding delivery line and bulk milk tank temperature data for a minimum of 30 days for both milk and CIP solutions.

Additional Information;

Fonterra is developing a table for temperature recording for suppliers (refer (2)), which will migrate into the 2018-2019 Dairy Diary. In the interim this will be supplied to suppliers as a supplement addition into the Dairy Diary.

An **emerging trend** that requires consideration when assessing and sizing cooling systems correctly; Split herds milking once a day with the second herd being milked twice a day. This will obviously put increased pressure on the cooling system and will need to be considered when adding cooling capacity.