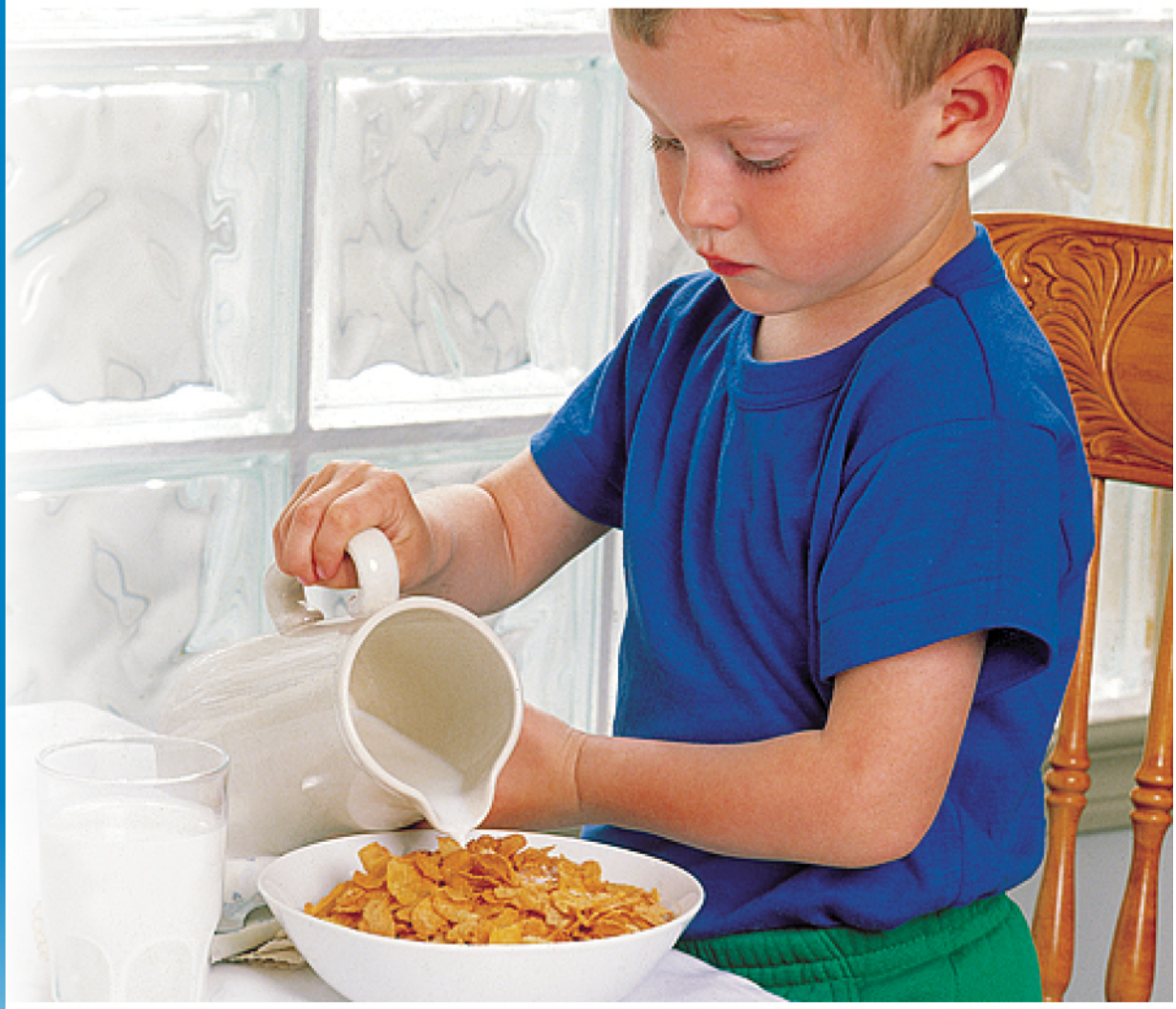
prAction
On-Farm Excellence

Food Safety

Workbook

SEPTEMBER 2015



Dairy Farmers of Canada

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A. INTRODUCTION

Today's customers of your milk, whether they be processors, retailers, exporters or consumers, want assurance that the food they receive is safe, wholesome and produced responsibly. In the past, food safety inspections and testing were sufficient to maintain customer trust; however, today buyers want further proof that the food they are buying meets clearly-defined food safety standards.

The **Canadian Quality Milk Program (CQM)** is an on-farm HACCP-based food safety program developed by Dairy Farmers of Canada. An Advisory Committee of Dairy Farmers of Canada oversees the overall program and a Technical Committee maintains the Reference Manual and Workbook. The CQM program is designed to maintain milk and meat safety on dairy farms through improved management practices, increased communication and effective record keeping.

Although HACCP was originally developed for use in food processing plants, the food industry is now applying the HACCP principles to each stage of the producer-to-consumer food chain. The CQM program is the producer component of the industry's commitment to food safety for its domestic and international consumers.

Producers who have implemented the program on their operations have found it to be an excellent risk prevention program, an effective management tool, and a useful training tool that increases staff's awareness of and responsibility towards the production of safe milk and meat.

The HACCP Approach

The HACCP (Hazard Analysis Critical Control Point) approach identifies potential problems or hazards in an operation and then develops steps that can be taken to eliminate or minimize those hazards. Prevention and documentation (e.g. records, standard operating procedures and corrective action plans) are essential to the program. Also, if anything goes wrong, corrective actions must be taken to remedy the problem and the whole program evaluated to make sure the situation is not repeated. To maintain a HACCP-based program you have to:

- Say what you do.
- Do what you say.
- Prove it.
- Improve it, wherever necessary.

Workbook

This Workbook is designed to assist you in creating your own unique farm plan and it outlines the minimum mandatory tasks that you must do to satisfy the program's requirements. In this workbook, Chapter B is a self-evaluation questionnaire with yes/no questions and some short answer questions. The self-evaluation questionnaire is designed for you to work through on your own to assess your current practices and determine which CQM program requirements you need to do. The questionnaire covers Best Management Practices, Critical Control Points and records (records, standard operating procedures, corrective action plans, and deviations) that address the key issues surrounding the production of safe milk and meat.

Chapter C provides the minimum mandatory records, standard operating procedures and corrective action plans that you are required to develop and maintain for the program. **You may use these or your own versions**, provided all the same key points are recorded.

Reference Manual

The Reference Manual provides more detailed information on the Best Management Practices, Critical Control Points and various milk and meat safety and quality issues that are commonly found on a dairy farm. The Reference Manual also contains troubleshooting guides. The manual is designed to be a useful tool for you as you develop your farm plans and train your staff.

Requirements

The CQM program outlines a number of requirements related to the safety of food produced on dairy farms that must be met for registration under the program. To be registered, the farm or producer must meet the following criteria:

- Be licensed to ship milk by the provincial regulatory authority.
- Meet the minimum standards set out in the Dairy Regulations of your province, as well as any pertinent Federal regulations (e.g. feed regulations) related to milk and meat safety.
- Monitor the Critical Control Points through the use of permanent records.
- Implement the mandatory Best Management Practices.
- Maintain record-keeping requirements identified in this Workbook.

Validators evaluate requirements:

- Compliant: meeting the intent of the CQM requirement
- Noncompliant:
  - **Major** or **Minor** nonconformity. A **Major** nonconformity is a clear violation of the CQM requirements that may have immediate food safety consequences. A **Minor** nonconformity is a deficiency that requires corrective action but does not have immediate food safety consequences.
  - **Demerits** - from 0 to 5 demerits for each demerit requirement. Zero demerits means that you comply with the requirement, while 1 to 5 demerits reflect the severity of noncompliance.

You must correct all major or minor problems within a specified time frame (e.g. 30 days); however, you can be registered with some demerits. The demerits allow producers to have some flexibility and promote continual improvement. The Workbook questions that are scored on a demerits system are identified in Section B.

Shaded areas within both the Workbook and the Reference Manual identify areas that are mandatory to the CQM program.

Unshaded areas within both the Workbook and the Reference Manual identify areas that are recommended to reduce food safety risks. Please review the recommendations and choose to follow those that are applicable to your operation.

BEST MANAGEMENT PRACTICES

Best Management Practices (BMPs) are recommended and proven management procedures that help prevent on-farm food safety problems from occurring and BMPs are the foundation of any HACCP program. The CQM program has grouped Best Management Practices into eight sections:

BMP1.	**Dairy Facilities, Pesticides and Nutrient Management**
BMP2.	**Feed**
BMP3.	**Animal Health**
BMP4.	**Medicines and Chemicals Used on Livestock**
BMP5.	**Milking Management**
BMP6.	**Facility and Equipment Sanitation**
BMP7.	**Use of Water for Cleaning Milk Contact Surfaces**
BMP8.	**Staff Training and Communication**

CRITICAL CONTROL POINTS

A Critical Control Point (CCP) is a point, step or procedure at which control can be applied and a food safety hazard can be prevented, eliminated or reduced to an acceptable level. Neglect or error in observing these points or practices could lead to ***irreversible*** problems with the end food product. The CQM program requires dairy producers to monitor the Critical Control Points:

CCP1.	**Milking Treated Animals**
CCP2.	**Cooling and Storage of Milk**
CCP3.	**Shipping Animals**

Table: Critical Control Points, Hazards and Critical Limits

CCP #	Hazard	Critical Limit
CCP 1: **Milking Treated Animals**	Chemical: *Pharmaceuticals*	Negative by a recognized test by the provincial regulatory authority
CCP 2: **Cooling and Storage of Milk**	Biological: *Pathogenic bacteria*	1st milking: greater than 0°C and less than or equal to 4°C within two hours after milking Subsequent milkings: temperature never above 10°C, and greater than 0°C and less than or equal to 4°C within one hour after milking and maintained within that temperature range.
CCP 3: **Shipping Animals**	Chemical: *Pharmaceuticals, pesticides, biological products*	Negative by a recognized test by the federal or a provincial regulatory authority or information is communicated to the next buyer
	Physical: *Broken needles*	Zero tolerance or information is communicated to the next buyer

RECORDS

Producers must monitor and control the CCPs through records. Producers who are new to the program must complete three months of records before they can apply for registration; however, once registered, **producers must keep records for a minimum of one rolling year.** Records must be complete and must also be easily accessible to staff at all times, including electronic records.

Routine Records

The routine records are permanent, written records where data is collected for easy recall and evaluation.

The records the CQM program requires producers to keep are:

- Written veterinary directions for drugs used extra-label.
- List of medicines and chemicals used on livestock.
- Livestock treatment record.
- Broken needles.
- Bulk tank temperature log or computerized encrypted data.
- Milking equipment sanitation record.
- Cleaning and sanitizing chart.
- Annual wash system evaluation.
- Water record.

Standard Operating Procedures

Standard Operating Procedures (SOPs) are documented step-by-step instructions describing how you want a particular task done (e.g. milking), and they are often used for CCPs. Examples of acceptable SOP methods are: written, pictorial, videoed or electronic files. Please note, SOPs in electronic format should be backed-up. Establishing SOPs helps everyone on your farm apply BMPs in a consistent manner. Consistency with a repetitive task, such as milking, is necessary to produce safe milk and to produce it efficiently. Furthermore, if something goes wrong, the SOP can be re-evaluated to determine if it can be improved to prevent the problem from re-occurring.

The CQM program requires dairy producers to develop the following Standard Operating Procedures:

- Pre-milking.
- Milking.
- Milking cattle with abnormal or treated milk.
- Post milking cleaning.
- Treating cattle.
- Shipping cattle.
- Feeding medicated feed.

Corrective Action Plans

Corrective Action Plans outline the steps family and staff should take to correct a problem if a problem occurs at a CCP and some BMPs (BMPs 4, 6 and 7). The CQM program requires producers to write Correction Action Plans for some specific scenarios. Corrective Action Plans should contain detailed instructions and contact numbers.

Deviations and Corrective Actions

If a problem or deviation occurs at a CCP or some BMPs (BMPs 4, 6 and 7), the CQM program requires producers to implement corrective actions to correct the problem and try to prevent the same problem from re-occurring. The program also requires that each deviation and chosen corrective action be documented. Many of the sample records in the Workbook have a place for deviations and corrective actions to be recorded and a separate sheet is provided as well.

Verification

You must have your plans and records for the CCPs checked or verified to ensure that they have been put into place and are being followed on the farm. Validators do verification for the CQM program.

Implementing the CQM Program

To implement the CQM program, you have to follow the mandatory BMPs, monitor the CCPs and keep the required records. All records, SOPs and corrective action plans must be accessible to everyone working on your farm. You also must train your employees to ensure that they understand the program requirements and to ensure that they implement it consistently. Once you have implemented the program, an on-farm validator will assess your program by conducting a validation (i.e. audit) of your records, Best Management Practices and Critical Control Points. You are responsible to demonstrate conformance to the program requirements and to make your records available to the validator. The validator then will make a recommendation to the provincial organization as to whether or not you adequately meet the program's requirements. You may be required to implement corrective actions before you can be registered. Once you are registered, you will undergo regular validations to ensure you are continuing to meet the program's requirements.

Your records must be maintained continuously and your Standard Operating Procedures and corrective action plans must be regularly up-dated, as procedures change on your farm. At least one person on the farm (Farm CQM Contact) must be dedicated to be responsible for ensuring that the CQM program is maintained and up-dated.

The Canadian Quality Milk program is designed to prevent and reduce food safety hazards and risks. Producers implement Best Management Practices and monitor Critical Control Points to provide safe milk and meat to consumers.

Producer Commitment

As part of the CQM program, you, or your authorized CQM farm contact, will be required to sign a declaration stating your commitment to produce safe milk and meat and to continue to maintain the CQM requirements. The declaration will ask you to declare that you understand the information listed in it and declare that you follow it. The declaration will contain information similar to:

- **ALL** of the mandatory requirements defined in the CQM Reference Manual have been addressed.
- For an initial validation, a minimum of 3 months of records are available.
- Registration may be withdrawn for cause by DFC or the Provincial Delivery Agent.
- The authorized farm contact may voluntarily terminate Registration without cause.
- The Farm's Registration status will not be made publicly available by DFC without authorization from the farm.
- The CQM Reference Manual will be revised and re-issued regularly.
- Registration carries the responsibility for the authorized farm contact to:

    1. Maintain the on-farm food safety system compliant with the CQM Reference Manual.
    2. Accept regular validations and submit self-declarations and respond to the findings.
    3. Inform the Provincial Delivery Agent of ownership or management changes on the farm.
    4. Respect the restrictions related to the use and control of the CQM certificate.

B. PRODUCER SELF-EVALUATION QUESTIONNAIRE

BMP 1 Dairy Facilities, Pesticides and Nutrient Management

Proper care of facilities, storage of chemicals, use of pesticides and nutrient management are important to the production of safe milk and meat.

	Producer Requirements	**Yes**	**No**	**N/A**	**Reference and Comments**
Regulatory Requirements					
1.	***Licensed dairy farm:*** Is your farm currently licensed to ship milk by the provincial regulatory authority?				Reference Manual (RM), Section 1.1
Pesticides and Chemicals					
2.	Do you **only** use pesticides registered for use in the: (Demerits) • Milk house? • Barn? • Fields?				RM, Section 1.2.1
3.	Do you use registered pesticides according to the label and follow pre-harvest intervals to harvest or grazing? (Demerits)				RM, Section 1.2.1
4.	Do you store pesticides, treated seed and fertilizer in a safe and secure manner and according to provincial dairy regulations? *(concerned with both cow & milk exposure)* (Demerits)				RM, Section 1.2.2
5.	Is any hose connected to the milk house or barn water system used for filling pesticide sprayers or containers? ☐Yes☐No If yes, do you have an anti-backflow device? (Demerits)				RM, Section 1.2.2
Nutrient Management					
6.	Do your animal husbandry, manure and waste management systems ensure the cleanliness of lactating cattle's udders? (Demerits)				RM, Section 1.3.1.1
7.	Do you restrict cattle access to manure storage or manure run- off? (Demerits)				RM, Sections 1.3.1.2, 1.3.2
8.	At the time of milk pick-up, is the lane-way and loading area free of manure contamination? (Demerits)				RM, Section 1.3.1.3
9.	***If you use sewage sludge***, do you have the necessary approval/permits required to use sewage sludge on your farm? (Demerits)				RM, Section 1.3.3

BMP 2 Feed

A herd's health and productivity, along with the quality and safety of their milk and meat, depend on the quality and management of the feeds they are fed.

Producer Requirements		Yes	No	N/A	Reference and Comments
Medicated Feed					
13.	***Do you use medicated feed?*** ☐ Yes ☐ No If yes: have you established and implemented a Standard Operating Procedure for feeding medicated feeds? (Record 7) (Demerits)				RM, Section 2.1
14.	Do you receive medicated feeds with milk or meat withdrawals or that are prohibited for use in lactating cattle? ☐ Yes ☐ No If yes, are feed bins and storage containers clearly marked for those who deliver the feed and for those that use it? (Demerits)				RM, Section 2.1
Feeds and Feeding					
15.	Do you have pet foods on your farm or feeds that are labeled not for use for ruminants (i.e. clearly labeled with the warning: Feeding this product to cattle, sheep, deer or other ruminants is illegal and is subject to fines or other punishment under the Health of Animals Act)? ☐ Yes ☐ No If yes, do you store and handle those feeds to avoid feeding those feeds to cattle or cross-contaminating feeds for cattle?				RM, Section 2.2

BMP 3 Animal Health

Maintaining good animal health is essential to producing high quality milk and meat.

Producer Requirements		Yes	No	N/A	Reference and Comments
Animal Identification					
18.	Do you identify all cattle according to the National Livestock Identification for Dairy (NLID) program or the Canadian Cattle Identification Agency (CCIA) program or according to Agri-Tracabilité Québec (ATQ)?				RM, Section 3.1
19.	Do you identify all cattle to allow for the maintenance of treatment records? (E.g. ear tags)				RM, Section 3.1
Health Management					
20.	Do you have a Cattle Health Declaration signed by your veterinarian annually and the most recent version kept on file?				RM, Section 3.2

BMP 4 Medicines and Chemicals Used on Livestock

Access to a range of livestock medicines and vaccines helps Canadian dairy producers maintain the health and productivity of dairy cattle. All dairy producers produce beef as well as milk and access to livestock medicines carries with it a responsibility to ensure the products are stored and used so that the health and safety of treated animals and the safety of milk and meat are assured.

Producer Requirements		Yes	No	N/A	Reference and Comments
Storage and Handling					
23.	Do you maintain a list of all medicines and chemicals that you use on livestock? (Record 9)				RM, Section 4.2.1
24.	Do you store medicines, chemicals used on livestock, syringes and needles in a clean and sanitary manner, in a dedicated place, according to label directions?				RM, Sections 4.2.1, 4.2.2
25.	Do you store and handle medicines and chemicals used on livestock in a manner that will not contaminate: • Milk? • Meat? • Feeds?				RM, Sections 4.2.1, 4.2.2
26.	Do you store livestock medicines and chemicals for non-lactating and lactating dairy cattle, and products not intended for dairy cattle in separate areas or cupboards?				RM, Section 4.2.1
Treatment Choice					
27.	Do you use **only** livestock medicines (including medicated foot- baths): • Approved in Canada for use in dairy cattle? • According to the label? • According to written veterinary directions, which must be available for every treatment administered not according to the label and for every veterinary drug used that is not approved for use in Canada? (Record 8)				RM, Sections 4.3.1, 4.3.2
Administration					
28.	Do you check for and record the identity of any animal and treatment site whose treatment resulted in an irretrievable broken needle? (Record 11)				RM, Section 4.4.1
Identification of Treated Cattle					
29.	Do you mark all treated cattle in the milking herd that have milk withdrawals (e.g. leg bands)? Specify type: _____				RM, Section 4.5

Producer Requirements		Yes	No	N/A	Reference and Comments
Records					
30.	Do you maintain a permanent written record of all medicines and chemicals used on livestock that have a milk or meat withdrawal? (Record 10)				RM, Section 4.6.1
31.	Have you established and implemented a Standard Operating Procedure for treating cattle? (Record 5)				RM, Section 4.6.2

BMP 5 Milking Management

Good milking management is critical in the production of safe and quality milk. During the milking process, bacteria and residues from the environment can be transferred into the milk. Furthermore, the udder health and, hence, quality and safety of milk of uninfected animals are at risk if proper control measures are not taken to prevent the spread of contagious mastitis.

Producer Requirements		Yes	No	N/A	Reference and Comments
35.	Have you established and implemented a Standard Operating Procedure for pre-milking? (Record 1) (Demerits)				RM, Section 5.1
36.	Have you established and implemented a Standard Operating Procedure for milking? (Record 2) (Demerits)				RM, Section 5.2.1
37.	Do you ensure that all teats are thoroughly cleaned, sanitized and dried (e.g. manure and teat dips removed) before milking, using approved products? (Demerits)				RM, Section 5.2.1
38.	Have you established and implemented a Standard Operating Procedure to minimize the risk of shipping abnormal milk? (Record 3) (Demerits)				RM, Section 5.2.2

CCP 1 Milking Treated Animals

The process of milking is the last control point where a producer can prevent chemical residues from treated animals' milk entering the human food chain.

Producer Requirements		Yes	No	N/A	Reference and Comments
39.	Have you established and implemented a Standard Operating Procedure to minimize the risk of shipping milk from treated cattle? (Record 3)				RM, Section 5.2.3

Producer Requirements		Yes	No	N/A	Reference and Comments
40.	Do you always follow the recommended **milk** withdrawal times for: • Medicated feeds? • Livestock pesticides? • Livestock medicines (including ensuring that when an animal calves or aborts that the withdrawal time for any dry cow treatment she may have been given has been followed)?				RM, Section 5.2.3
41.	Do you test milk from new animals for inhibitors before shipping their milk, not ship the milk unless the results are negative and record the results? (Record 10) **Or** do you have a letter of guarantee from the previous owner?				RM, Section 5.2.3

CCP 2 Cooling and Storage of Milk

Milk must be cooled quickly and stored at a temperature greater than 0°C and less than or equal to 4°C to ensure that bacteria do not multiply. Monitoring the bulk tank temperature can ensure that milk is stored safely.

Producer Requirements		Yes	No	N/A	Reference and Comments
43.	Is the bulk tank temperature recorded and checked after every milking for each bulk tank? (Record 12)				RM, Section 6.1

BMP 6 Facility and Equipment Sanitation

Good sanitation helps reduce disease, the need for antibacterial agents and the risk of contamination from chemicals, and livestock medications. The milk house is the final on-farm site for safety and quality control, and must be used exclusively for cooling and storing milk and for cleaning, sanitizing and storing materials and equipment used in the production and handling of milk.

Producer Requirements		Yes	No	N/A	Reference and Comments
Equipment Sanitation					
46.	Do you use approved cleaning products according to the accessible milk house cleaning and sanitizing chart? (Record 14)				RM, Section 7.1.1
47.	Do you regularly inspect and record the cleanliness of milking equipment (e.g. receiver jar and bulk milk tank) for each washing system (e.g. each CIP system and each bulk tank) (minimum acceptable frequency is monthly, weekly is recommended)? (Record 13)				RM, Section 7.1.2
48.	Do you check and record the temperature of the hot water from the tap or wash water at least monthly? (Record 13)				RM, Section 7.1.2

Producer Requirements		Yes	No	N/A	Reference and Comments
50.	Have you established and implemented a Standard Operating Procedure for post-milking system cleaning? (Record 4)				RM, Section 7.1.4
51.	Do you have each wash system evaluated annually by an industry professional and have the deficiencies been corrected? (Record 14b)				RM, Section 7.1.5
Milk House					
52.	Is the milk house used exclusively for cooling and storing milk and for cleaning, sanitizing, and storing materials and equipment used in the production and handling of milk?				RM, Section 7.2
53.	Are cleaning chemicals stored in a location and manner that will not contaminate milk?				RM, Section 7.2
54.	Are the milk house and external surfaces of the milking and milk storage equipment kept clean?				RM, Section 7.2
55.	Do you have a functioning safety switch or fail-safe system in place to avoid accidental entry of wash water into the tank?				RM, Section 7.2
56.	Have you removed all mercury thermometers and vacuum columns from the milk house?				RM, Section 7.2
57.	Do all lights near the bulk tank opening have a protective covering or do the bulbs have a protective safety coating?				RM, Section 7.2

BMP 7 Use of Water for Cleaning Milk Contact Surfaces

Dairy farms require large volumes of water for cleaning milking equipment and the milk house. If the water used for cleaning is contaminated, milk safety could be compromised.

Producer Requirements		Yes	No	N/A	Reference and Comments
59.	Do you: • Annually test the water used for milking equipment sanitation for the microbiological parameters determined by the provincial authority? • Ensure the water meets the microbiological parameters? • Keep or record the water test results? (Record 15)				RM, Sections 7.4.2, 7.4.3

CCP 3 Shipping Animals

Shipping animals is the last control point where a producer can prevent animals carrying chemical residues and/or physical hazards (e.g. broken needles) from entering the human food chain. In order to ensure safe meat, animals containing chemical residues must not be shipped for human consumption. Instances where needles have been broken during livestock medicine administration and remain in the animals' muscles must be recorded. The animals' identification and information regarding the site of the broken needle should be passed on to the next buyer.

Producer Requirements		Yes	No	N/A	Reference and Comments
61.	Do you always follow the recommended **meat** withdrawal times for: • Livestock medicines? • Livestock pesticides? • Medicated feeds?				RM, Section 8.1
62.	Have you established and implemented a Standard Operating Procedure to minimize the risk of shipping treated animals and animals carrying physical hazards (e.g. broken needles)? (Record 6)				RM, Section 8.1

BMP 8 Staff Training & Communication

Good communication and regular updates are essential for staff and family members to ensure the safety and wholesomeness of food produced on dairy farms. Identifying each person's responsibilities clarifies a person's tasks and increases awareness of who is responsible when the person normally doing a job is not available.

Producer Requirements		Yes	No	N/A	Reference and Comments
64.	Do you: (Demerits) • Regularly train staff to implement your CQM program? • Train new staff to implement your CQM program? • Ensure staff have access to Standard Operating Procedures, corrective action plans and records that you have developed and maintained?				RM, Sections 9.1, 9.2, 9.3

Producer Requirements		Yes	No	N/A	Reference and Comments
65.	Do you have a written corrective action plan on how to communicate and address: (Record 16) • Incorrect administration of medications or other chemicals to an animal (BMP)? • Entry of milk from a treated animal into the bulk milk tank (CCP)? • Improperly cooled or stored milk (CCP)? • Dirty milk contact surfaces (BMP)? • Improper water temperature (BMP)? • Milking equipment water contaminated with bacteria (BMP)? • Sale of a treated animal or an animal with a broken needle and the next buyer was not informed (CCP)?				RM, Sections 4.6.3, 9.4 RM, Sections 5.2.3, 9.4 RM, Sections 6.1, 9.4 RM, Sections 7.1.3.1, 9.4 RM, Sections 7.1.3.2, 9.4 RM, Sections 7.4.4, 9.4 RM, Sections 8.1, 9.4
66.	Do you keep a record of any problems that have occurred with and the corrective actions taken regarding: • Any treatments administered to animals (Record 17)? • Inhibitor residues in milk (Record 17)? • Cooling and storage of milk (Record 12 or 17)? • Equipment sanitation and hot water/wash water temperature (Record 13 or 17)? • Water quality (Record 15 or 17)? • Shipping animals (Record 17)?				RM, Section 9.4

Already Registered? Preparing for the Next Validation?

If you are already registered with the CQM program, you have a few additional responsibilities to ensure that you have addressed.

Producer Requirements	Yes	No	N/A	Reference and Comments
Other				
Does the use of your CQM certificate conform? (E.g. not reproduced without permission, not used to denote product conformity.)				Use of Certificate Fact Sheet
Have any major changes occurred on the farm since the last validation? If yes, did you deal with them appropriately? (E.g. inform Provincial Delivery Agent of ownership or major management changes on your farm.)				Registration Application Form
Have you addressed all corrective actions from your previous validation?				Validation report

C. MANDATORY RECORDS

The following records must be kept in order to meet the requirements of the Canadian Quality Milk program:

Record 1-7. Standard operating procedures for:

- Pre-milking
- Milking
- Milking cattle with abnormal or treated milk
- Post-milking cleaning
- Treating cattle
- Shipping cattle
- Feeding medicated feed

Record 8. Veterinary Directions for Extra Label Drug Use

Record 9. List of medicines & chemicals used on livestock

Record 10. Livestock treatment record

Record 11. Broken needles

Cattle Health Declaration

Sample letter of guarantee/shipping record

Record 12. Bulk tank temperature log, chart recorder graphs or computer encrypted data

Record 13. Milking equipment sanitation record

Record 14. Cleaning and sanitizing chart

Record 14b. Sample annual wash system evaluation

Record 15. Water record or test results

Record 16. Corrective action plans

Record 17. Deviation and corrective action record

The records in this Workbook have been field tested and proven to be the most popular with dairy producers. **You may use them or you may provide your own**. If you choose to provide your own, they **must contain all the mandatory data**.

For Example: Livestock Treatment Records must contain:

- Animal ID#
- Treatment administered (product, dosage, mode of treatment)
- Withdrawal times (milk and meat)
- Date of treatment
- Completed withdrawals (milk and meat)
- Expiry date of product checked
- Broken needles
- Residue testing
- Person treating (signature)

Record 1: STANDARD OPERATING PROCEDURE (SOP) FOR PRE-MILKING

In order to assure cattle are milked with clean and properly functioning equipment, describe step-by-step the various actions that must be taken to set-up the equipment for milking. See Chapter 5 of the Reference Manual for a sample SOP.

Step 1 _____

_____

Step 2 _____

_____

Step 3 _____

_____

Step 4 _____

_____

Step 5 _____

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Step 6 _____

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Step 7 _____

_____

Step 8 _____

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Step 9 _____

_____

Step 10 _____

_____

Date written / up-dated: _____

Record 2: STANDARD OPERATING PROCEDURE (SOP) FOR MILKING

In order to assure every animal is milked the same way day after day, describe step-by-step the various actions that must be taken for milking. See Chapter 5 of the Reference Manual for a sample SOP.

Step 1 _____

_____

Step 2 _____

_____

Step 3 _____

_____

Step 4 _____

_____

Step 5 _____

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Step 6 _____

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Step 7 _____

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Step 8 _____

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Step 9 _____

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Step 10 _____

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Record 3: STANDARD OPERATING PROCEDURE (SOP) FOR MILKING CATTLE WITH ABNORMAL OR TREATED MILK

In order to prevent shipping **abnormal milk and milk containing livestock medicine or chemical residues**, describe step-by-step the various actions that must be taken to prevent this milk from entering the food supply. See Chapter 5 in the CQM Reference Manual for a sample SOP.

Please note: If your procedures are different for abnormal and treated milk, you may need two separate SOPs.

Step 1 _____

_____

Step 2 _____

_____

Step 3 _____

_____

Step 4 _____

_____

Step 5 _____

_____

Step 6 _____

_____

Step 7 _____

_____

Step 8 _____

_____

Step 9 _____

_____

Note: If you have a problem or improperly milk a treated animal, see Corrective Action Plans, Record 16.

Record 4: STANDARD OPERATING PRODEDURE (SOP) FOR POST-MILKING CLEANING

In order to insure that **milk is cooling properly and that the equipment is cleaned** adequately, describe step-by-step the various actions that must be taken to set-up the equipment after milking. See Chapter 7 in the CQM Reference Manual for a sample SOP.

Step 1 _____

_____

Step 2 _____

_____

Step 3 _____

_____

Step 4 _____

_____

Step 5 _____

_____

Step 6 _____

_____

Step 7 _____

_____

Step 8 _____

_____

Step 9 _____

_____

Step 10 _____

_____

Note: If you have a problem or equipment is not cleaned, see Corrective Action Plans, Record 16.

Record 5: STANDARD OPERATING PROCEDURE (SOP) FOR TREATING CATTLE

In order to prevent **livestock medicine or chemical residues in milk and meat, proper administration of livestock medicine is essential**. Describe step-by-step the various actions that must be taken when an animal has to be treated. See Chapter 4 of the CQM Reference Manual for a sample SOP.

Step 1 _____

_____

Step 2 _____

_____

Step 3 _____

_____

Step 4 _____

_____

Step 5 _____

_____

Step 6 _____

_____

Step 7 _____

_____

Step 8 _____

_____

Step 9 _____

_____

Step 10 _____

_____

Note: If you have a problem or improperly treat an animal, see Corrective Action Plans, Record 16.

Record 6: STANDARD OPERATING PROCEDURE (SOP) FOR SHIPPING CATTLE

In order to prevent **shipping animals containing livestock medicine or chemical residues or broken needles**, describe step-by-step the various actions that must be taken when shipping animals. See Chapter 8 in the Reference Manual for a sample SOP.

Step 1 _____

_____

Step 2 _____

_____

Step 3 _____

_____

Step 4 _____

_____

Step 5 _____

_____

Step 6 _____

_____

Step 7 _____

_____

Step 8 _____

_____

Step 9 _____

_____

Step 10 _____

_____

Note: If you have a problem or ship a treated animal, see Corrective Action Plans, Record 16.

Record 7: STANDARD OPERATING PROCEDURE (SOP) FOR FEEDING MEDICATED FEED

If you feed medicated feed (e.g. medicated calf feed) on your farm, describe step-by-step the various actions that must be taken to **prevent residues from medicated feeds** from entering the human food supply. See Chapter 2 in the Reference Manual for a sample SOP.

Step 1 _____

_____

Step 2 _____

_____

Step 3 _____

_____

Step 4 _____

_____

Step 5 _____

_____

Step 6 _____

_____

Step 7 _____

_____

Step 8 _____

_____

Step 9 _____

_____

Step 10 _____

_____

Record 8: VETERINARY DIRECTIONS FOR EXTRA-LABEL DRUG USE

Clinic: _____

Veterinarian: _____

Emergency Contact Information: _____

Client / Farm: _____

Patient ID or Indications for Use: _____

Product(s) Name: _____

DIN(s) / Registration Number(s): _____

If DIN is not available, check the appropriate box:

vaccine compounded product veterinary Natural Health Product (#_____) other

Instructions for use (including dosage, frequency, route, maximum volume per injection site, duration of treatment):

_____

_____

_____

Milk withdrawal: _____ **Meat Withdrawal:** _____

Special Instructions, Precautions, Warnings, Storage, etc. (if required) (e.g. human safety, special storage, inhibitor testing):

_____

_____

Veterinarian's signature: _____

Date of Issue: _____

Date Directions valid until: _____

Note 1: all items are mandatory, unless indicated otherwise. Vets may use their own format, as long as all required items are included.

Note 2: please see Chapter 4, Section 4.3.2 of the Reference Manual for examples of extra-label drug use.

Record 9: LIST OF MEDICINES & CHEMICALS USED ON LIVESTOCK

Product Name	Approved for use in dairy (✓)	Product label, insert or written instructions from vet kept (✓)	Stored According to Label (✓)	Product Name	Approved for use in dairy (✓)	Product label, insert or written instructions from vet kept (✓)	Stored According to Label (✓)

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Record 10: LIVESTOCK TREATMENT RECORD

Animal ID	Expiry Date Valid (✓)	Treatment Administered (product, dosage, mode of treatment[a])	Withdrawal Time (Hrs/days)		Date of Treatment (✓ am or pm)	Completed Withdrawal (✓ am or pm)		Residue Testing (+/-)[b]	Broken Needles[c] (✓ & Site[d])	Person Treating (Signature)
			Milk	Meat		Milk	Meat			
					Date: ❏ am ❏ pm	Date: ❏ am ❏ pm	Date: ❏ am ❏ pm			
					Date: ❏ am ❏ pm	Date: ❏ am ❏ pm	Date: ❏ am ❏ pm			
					Date: ❏ am ❏ pm	Date: ❏ am ❏ pm	Date: ❏ am ❏ pm			
					Date: ❏ am ❏ pm	Date: ❏ am ❏ pm	Date: ❏ am ❏ pm			
					Date: ❏ am ❏ pm	Date: ❏ am ❏ pm	Date: ❏ am ❏ pm			
					Date: ❏ am ❏ pm	Date: ❏ am ❏ pm	Date: ❏ am ❏ pm			
					Date: ❏ am ❏ pm	Date: ❏ am ❏ pm	Date: ❏ am ❏ pm			
					Date: ❏ am ❏ pm	Date: ❏ am ❏ pm	Date: ❏ am ❏ pm			
					Date: ❏ am ❏ pm	Date: ❏ am ❏ pm	Date: ❏ am ❏ pm			
					Date: ❏ am ❏ pm	Date: ❏ am ❏ pm	Date: ❏ am ❏ pm			

a: Mode of Treatment IM = Intramuscular (in the muscle) IMM = intramammary (in the udder) IU = intrauterine (in the uterus) IV = intravenous (in the vein) OR = oral (in the mouth) SQ = subcutaneous (under the skin) TP = topical (on the skin)
b: Residue testing only required for new animals or a letter of guarantee from the previous owner.
c: Broken needles can also be recorded on Record 11.
d. Site R = Rump F = Flank N = Neck

Record 11: BROKEN NEEDLES

Animal ID	Date of Broken Needle	Location	Signature	Information passed on to next buyer (✓)	Signature

Note: This record must be maintained for as long as the cattle listed remain in the herd.

Cattle Health Declaration

Producer Name (Name on License): _____

License #: _____

Veterinarian Name: _____

Veterinarian Declaration:

As of this date, I have visibly observed the general health status of the cattle in this herd and found them to be healthy, or receiving satisfactory care and treatment for routine health conditions. I have verified that this producer has in place a system for identifying treated and sick cows and for preventing milk from these cows from entering the producer's bulk tank(s).

Veterinarian's Signature: _____

Date: _____

Please Note: the Declaration is valid for one year and must be renewed annually.

Guidelines for the Declaration:

The intent of the Cattle Health Declaration is to satisfy the export requirement from foreign countries to demonstrate that milk used in exported products is sourced from healthy animals. An annual herd health inspection conducted by a veterinarian is the minimum requirement.

A veterinarian should look for evidence or visible signs in the herd for a disease that is transmissible to humans by milk or that adversely affects the quality or flavor of the milk. If the milk is considered acceptable by the provincial regulatory body, the veterinarian should be able to sign the Declaration.

All Canadian producers are required to obtain the Declaration because milk is co-mingled in Canada and milk destined for export products is not segregated.

The Cattle Health Declaration does not include animal welfare. It is specific to animal health.

Sample Letter of Guarantee / Shipping Record

Seller's Name (person or company): _____

Buyer / Recipient's Name (person or company): _____

Date Shipped: _____

Animal Identification Number(s): _____

Do any of the animals listed above have pending milk or meat withdrawal times or broken needles?

☐ No ☐ Yes

If yes, please fill in the following table:

Animal ID	Date of Treatment	Product	Dose (✓)		Completed Withdrawal Date		Broken Needle? If Yes, describe site
			According to label	Extra label	Milk	Meat	

I, the seller, have:

☐ Owned the animal(s) being sold for at least the last two months;

OR,

☐ A letter of guarantee from the previous owner(s);

OR,

☐ Tested the milk from the animal(s) for antimicrobials using _____ test or I sent the sample(s) to _____ (plant/ laboratory), and have proof of a negative antimicrobial test result(s).

Signature of Seller: _____

Signature of Buyer / Recipient: _____

Record 12: BULK TANK TEMPERATURE LOG

	First Milking	Second & Subsequent Milkings
Recommended Cooling Range	Within 2 hours (½ hour preferred) 1°C - 4°C (34°F-40°F)	• blend temperature maximum 10°C (50°F) • within 1 hour (1/2 preferred) 1°C - 4°C (34°F-40°F)
Normal Range identified for your bulk tank *after* milking		

Month:							
Day	Bulk Tank Temperature						Corrective Action (if necessary)
	am	initial	mid-day	initial	pm	initial	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							

Note: Electronic chart recorders or logs may be substituted for this manual method. Please check with a CQM advisor.

This record accommodates milking 3 times a day; if you milk only 2 times a day, just use two columns.

Record 13: MILKING EQUIPMENT SANITATION RECORD

Date	Check Sanitation Level of Equipment (✓ Clean x Unclean)																			Corrective Action
	Bulk Tank**					Milking Equipment***														
						Hot Water / Wash Water T°*													Signature	

*Potential areas to inspect: **Bulk tank: paddle, dipstick, surface, outlet, valve and gaskets. ***Milking Equipment: receiver jar, pipeline inlets, inflations, milk hoses, claws, meters, weigh jars, gaskets, filter coil, buckets, pails, sanitary trap. *Note: If you use cold-water wash detergents for your system, you do not need to record the hot water temperature.*

Record 14: CLEANING AND SANITIZING CHART

Farm Name: _____ **Date:** _____

Water Analysis: hardness_____ grains pH_____ iron_____ ppm (mg/l)

PIPELINE / AMS: # / Name: _____	BULK TANK
Cycle #1: _____	**Purpose:** _____
Product Name: _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__	**Product Name:** _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__
Cycle #2: _____	**Purpose:** _____
Product Name: _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__	**Product Name:** _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__
Cycle #3: _____	**Purpose:** _____
Product Name: _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__	**Product Name:** _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__
Cycle #4: _____	**Purpose:** _____
Product Name: _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__	**Product Name:** _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__
Cycle #5: _____	**Purpose:** _____
Product Name: _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__	**Product Name:** _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__
Cycle #6: _____	**Purpose:** _____
Product Name: _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__	**Product Name:** _____ Volume: _____ ml oz Temperature: (Cold Warm Hot) Water Volume: _____ litres gallons Minimum start temperature: _____ °__ Minimum end temperature: _____ °__

Signed by: _____ **Company:** _____
(Equipment dealer / Industry professional)

Record 14b: SAMPLE ANNUAL WASH SYSTEM EVALUATION

Please note: Equipment dealers or industry professionals may use this form or their own wash system evaluation form. If they use their own form, they should include the items in this sample form. Table 14 in Section 7.1.1 of the Reference Manual provides guidance on acceptable parameters.

Purpose: the annual wash system evaluation is one step in a series of best management practices designed to help you minimize milk safety issues. The wash system evaluation is designed to help you identify problem areas so that you can prevent problems from occurring. The sample record is a guideline. Your industry professional may customize your wash system evaluation to best suit your equipment's needs. This record should be completed for **each** AMS or wash system (e.g. two robots washed by one wash sink).

Farm Name: _____ **AMS # or Name:** _____ **Date:** _____

EVALUATION PARAMETERS	PIPELINE / AMS	BULK TANK
1. Time: circulation / cycle time for: **a.** Cycle #1: _____ **b.** Cycle #2: _____ **c.** Cycle #3: _____ **d.** Cycle #4: _____ **e.** Cycle #5: _____ **f.** Cycle #6: _____ Comments / corrections:	_____mins Adequate? ☐Yes ☐No _____mins Adequate? ☐Yes ☐No _____mins Adequate? ☐Yes ☐No _____mins Adequate? ☐Yes ☐No _____mins Adequate? ☐Yes ☐No _____mins Adequate? ☐Yes ☐No	_____mins Adequate? ☐Yes ☐No _____mins Adequate? ☐Yes ☐No _____mins Adequate? ☐Yes ☐No _____mins Adequate? ☐Yes ☐No _____mins Adequate? ☐Yes ☐No _____mins Adequate? ☐Yes ☐No
2. Temperature: Water temperature compares with the product manufacturer requirements or the Cleaning and Sanitizing Chart for: **a.** Cycle #1: _____ **b.** Cycle #2: _____ **c.** Cycle #3: _____ **d.** Cycle #4: _____ **e.** Cycle #5: _____ **f.** Cycle #6: _____ Comments / corrections:	Temperatures are in: ☐C or ☐F ____° Adequate? ☐Yes ☐No ____° Adequate? ☐Yes ☐No ____° Adequate? ☐Yes ☐No ____° Adequate? ☐Yes ☐No ____° Adequate? ☐Yes ☐No ____° Adequate? ☐Yes ☐No	Temperatures are in: ☐C or ☐F ____° Adequate? ☐Yes ☐No ____° Adequate? ☐Yes ☐No ____° Adequate? ☐Yes ☐No ____° Adequate? ☐Yes ☐No ____° Adequate? ☐Yes ☐No ____° Adequate? ☐Yes ☐No
3. Slugging Action: Comments / corrections:	Adequate slugging action for water flow (e.g. air injector or air compressor function)? ☐Yes ☐No	Adequate water spray? ☐Yes ☐No ☐Manual Wash
4. Chemical Concentrations:		
a. Water Analysis: hardness_____grains pH_____ iron_____ ppm (mg/l)		
b. Chemical concentrations: correct amount and dispersal (i.e. are automatic dispensers working)? Comments / corrections:	Wash: ☐Yes ☐No Acid: ☐Yes ☐No Sanitize: ☐Yes ☐No ☐Manual Wash - Buckets	Wash: ☐Yes ☐No Acid: ☐Yes ☐No Sanitize: ☐Yes ☐No ☐Manual Wash

Signed by: _____ **Company:** _____
(Equipment dealer / Industry professional)

Record 15: WATER RECORD (or keep the test results report from the lab as your record)

Source of Supply for washing milking equipment**	Date Tested	Test Results						Corrective Action
		Bacteria			Others			

** DW- Dug Well IIW- Drilled T/CW- Town/city SW- Surface Water

Record 16: CORRECTIVE ACTION PLANS (Emergency Plans)

Area of Concern	Specific Incidence	Corrective Action To Be Taken	Contact Person		
			Name	Phone	Cell Phone
Medicines and Chemicals Used on Livestock	Improper administration of livestock medicines or chemicals				
Milking Treated Animals	Milk from treated animals enters the bulk tank.				
Shipping Animals	Animal is shipped with a chemical residue (e.g. antimicrobials) or broken needle in it and the next buyer is not informed.				

Record 16: CORRECTIVE ACTION PLANS (Emergency Plans)

Area of Concern	Specific Incidence	Corrective Action To Be Taken	Contact Person		
			Name	Phone	Cell Phone
Cooling and Storage of Milk	Milk is not cooled to between 1°C to 4°C within the acceptable cooling period				
Equipment Sanitation	1. Visible milk residue build-up on milk contact surfaces				
	2. Improper water temperature				
Use of Water for Cleaning of Milk Contact Surfaces	Water test result reveals a form of contamination (e.g. high bacteria)				

Record 16: CORRECTIVE ACTION PLANS (Emergency Plans)

Area of Concern	Specific Incidence	Corrective Action To Be Taken	Contact Person		
			Name	Phone	Cell Phone

Record 17: DEVIATION AND CORRECTIVE ACTION RECORD

Date	Description of Problem or Deviation (i.e. what went wrong)	Description of Corrective Action Taken (i.e. how was it fixed)	Signature