

**MANUFACTURING MILK LAW OF 2001 (EXCERPT)**  
**Act 267 of 2001**  
Article 13

**288.690 Milk for human consumption; compliance with requirements for eradication of tuberculosis and brucellosis; prohibited sale; disposal; milking barn or milking parlor; yard and loafing area; duties of person obtaining milk from dairy animal; milkhouse or milkroom; dairy farm bulk tank; milk shipping.**

Sec. 130.

(1) A person who offers milk to the public for human consumption shall obtain that milk from dairy animals that are located in areas under federal or state supervision for the eradication of tuberculosis and brucellosis and comply with those requirements for eradication of tuberculosis and brucellosis. Each animal that produces milk for human consumption shall be properly maintained and fed in a manner consistent with department recommendations for the maintenance of animals of that kind. Any dairy animals that are officially classified as tuberculosis reactors as defined in the animal industry act, 1988 PA 466, MCL 287.701 to 287.745, shall be milked last or in separate equipment and the milk from these dairy animals shall not be used or sold for human or animal consumption.

(2) A person shall not sell or offer for human consumption milk that is known to the person to be any of the following:

(a) Infected with mastitis or showing signs of being bloody, ropy, or clumpy.

(b) Carrying a violative drug residue in an amount that exceeds the maximum permitted under state or federal law.

(c) Containing a pesticide or other chemical in excess of the maximum amount permitted under state or federal law.

(d) Not normal and fresh in odor or appearance or containing excessive coarse sediment when examined organoleptically, visually, or by an accepted test procedure.

(e) Containing excessive sediment as determined by sediment test methods provided in standard methods for the examination of dairy products and classified to USDA sediment standards as more than a no. 3.

(f) Exceeds legal temperature, bacterial, or somatic cell limits.

(3) A person in possession of milk described in subsection (2) shall dispose of that milk in the manner directed by the department.

(4) A milking barn or milking parlor shall be all of the following:

(a) Well-lighted and ventilated.

(b) Of a size and arrangement adequate to provide for sanitary milking operations.

(c) Constructed with floors and gutters of concrete or other impervious material.

(d) Kept clean, with manure removed daily and stored out of reach of the animals that are subject to milking.

(e) Kept free of swine or fowl at all times.

(f) Constructed with a dust-tight ceiling.

(5) The yard and loafing area for dairy animals shall be all of the following:

(a) Of ample size to prevent overcrowding.

(b) Drained to prevent the formation of standing pools.

(c) Kept as clean as is practicably possible.

(6) A person who obtains milk from a dairy animal shall do all of the following:

(a) Ensure that the udders and flanks of the animal are kept clean.

(b) Wash and wipe the udders and teats of the animal immediately before milking with a clean cloth or paper towel that is treated with an approved sanitizing solution and dried with a clean cloth or paper towel after washing, or use any other method approved by the department.

(c) Wear clean outer clothing.

(d) Maintain clean and dry hands during milking.

(e) Refrain from handling the animal, milk containers, milking utensils, and equipment at any time the person has an infected cut or open sore on either of his or her hands or arms.

(f) Milk last or with separate equipment those animals that secrete abnormal milk and exclude that abnormal milk from the milk that will be offered for human consumption.

(g) Maintain and properly store milk stools, surcingles, and antikickers.

(h) Refrain from conducting an activity that raises dust in the milking area immediately before or during milking.

(i) Store feed and concentrates in a tightly covered container.

(j) Except for milk that is delivered to a processing plant within 2 hours after the milking, cool and store milk that is contained in cans and that will be used exclusively for cheese manufacturing at 60 degrees Fahrenheit (16 degrees Celsius) or lower at the farm within 2 hours after the milking.

(k) Cool milk that is stored in a dairy farm bulk tank to 50 degrees Fahrenheit (10 degrees Celsius) within 4 hours or less of the commencement of the first milking, and to 45 degrees Fahrenheit (7 degrees Celsius) or less within 2 hours after milking, provided that the blend temperature after the first milking and subsequent milkings does not exceed 50 degrees Fahrenheit (10 degrees Celsius).

(7) A milkhous or milkroom shall be all of the following:

(a) Well-lighted and ventilated. Lighting in the milkhous shall be adequate for milkhous operations. A minimum of 1 light for the wash vat and a light for each bulk tank opening shall be provided. Nonelectric farms shall have the minimum of 1 battery-operated light for each bulk tank opening. Lights shall not be positioned directly over bulk tank openings. Fuels used for milkhous operations shall not cause odors that may impart off-flavors to the milk.

(b) Located in convenient proximity to a milking barn or milking parlor.

(c) Constructed in accordance with applicable building codes, with each of the following:

(i) A floor of concrete or other impervious material, graded to provide appropriate drainage.

(ii) Walls and ceiling of a smooth, readily cleanable material.

(iii) A platform or slab constructed of concrete or other impervious material at the exterior of the milkhous or milkroom, centered beneath a suitable opening, fitted with a tight, self-closing door, located on the exterior wall for milkhous or milkroom connections to bulk milk tanks. The platform or slab shall be a minimum of 4 feet by 4 feet to provide sufficient room and clean surface for the milk hauler to stand and handle the milk transfer hose.

(iv) A truck approach to the milkhous or milkroom, properly graded and surfaced to prevent mud or pooling of water at the milk loading point.

(d) Equipped with a wash and rinse vat, utensil rack, and milk cooling facilities, for the handling and cooling of milk, and for the washing, handling, and storage of milking utensils and equipment.

(e) Free of any product that the department determines is likely to contaminate milk or create a public health hazard.

(f) Equipped with a supply of hot water adequate for cleaning milk utensils and equipment.

(g) Designed without a direct opening, and with a solid, tight-fitting, self-closing door, at any entrance to a barn, stable, or milking parlor.

(h) Designed with screens at all outside openings, unless another means is provided to prevent the entrance of insects or rodents into the milkhous or milkroom. Screen doors shall be tight-fitting and self-closing and open outward. Toilet facilities located adjacent to the milkhous or milking facilities shall have self-closing doors and all outside openings shall be screened.

(i) Plans for new facilities, remodeled facilities, or new equipment installations must be submitted to the department for prior approval.

(8) A dairy farm bulk tank shall be located in a milkhous or milkroom in a manner that allows access to all areas of the tank for cleaning and servicing. A dairy farm bulk tank shall not be placed over a floor drain or under a ventilator or unprotected light fixture. A dairy farm shall ensure that each new farm bulk tank meets sanitary standards and is installed in accordance with department specifications.

(9) The owner or operator of a milkhous or milkroom shall ensure all of the following:

(a) That the milkhous or milkroom is clean and free of contaminants, animals, and fowl.

(b) That an unapproved pesticide is not stored in the milkhous or milkroom.

(c) That any pesticide used in or near the milkhous or milkroom is used in accordance with label instructions to prevent the contamination of milk or equipment.

(d) That each utensil, milk can, milking machine, pipeline system associated with a milking machine, and other equipment used in the handling of milk is maintained in good condition, free from rust, open seams, milkstone, and any unsanitary condition.

(e) That each utensil and item of equipment used in the handling of milk is of a smooth, noncorrosive material, washed, rinsed, and drained after each milking, stored in an appropriate manner, and sanitized immediately before use, by using dairy cleaners, detergents, sanitizing agents, or other similar materials labeled for dairy or food service use that will not contaminate or adversely affect the milk.

(f) That each dairy farm tank used on the premises is constructed of a material or materials approved by the department and installed in accordance with subsection (11).

(g) That each item that is designed for a single use is properly stored and is not reused.

(h) That the dairy farm water supply complies with the safe drinking water act, 1976 PA 399, MCL 325.1001 to 325.1023, or, if the water supply is not new or reconstructed after April 1, 1994, the water supply is annually tested by a laboratory approved by the department and found to be of safe and satisfactory quality and in compliance with guidelines established by the department of community health.

(i) That waste products are disposed of in a manner that will not pollute the soil surface, contaminate a feed, milk, or water supply, or be exposed to insects.

(10) A producer who ships milk in cans shall do each of the following:

(a) Ensure that each milk can used in transporting milk from dairy farm to plant is seamless with an umbrella lid for easy cleaning.

(b) Inspect, repair, and replace milk cans as necessary to prevent the use of cans and lids with open seams, cracks, rust, milkstone, or any unsanitary condition.

(11) A producer who ships milk from a farm bulk tank shall comply with the following:

(a) A farm tank on a dairy farm shall be installed so as to remain level at all times.

(b) A farm tank shall have an accurate indicating thermometer stored in the milkhouse which may be either an integral thermometer in the farm tank or an approved thermometer acceptable to the director.

(c) A farm tank shall have a calibrated means of measurement and an accurate and legible volume to weight conversion chart, unless the farm tank is mounted on an accurate scale. All measuring devices must be in compliance with the weights and measures act, 1964 PA 283, MCL 290.601 to 290.634.

(d) A conversion chart shall bear the same serial number as that found on the farm tank and measuring rod.

(e) The producer is responsible for recalibrating a farm tank that does not have an accurate conversion chart. A recalibration must be in compliance with the weights and measures act, 1964 PA 283, MCL 290.601 to 290.634. A person shall not adjust, alter, or change a conversion chart unless the change, alteration, or adjustment is made strictly according to the requirements of the weights and measures act, 1964 PA 283, MCL 290.601 to 290.634.

(f) A farm tank shall not be filled to a capacity that exceeds the calibrated limits as indicated by the conversion chart. If the producer wishes to fill the tank nearer to the top, the tank shall be calibrated to an additional height, which still permits proper agitation without spillage.

(g) Milk to be offered for sale shall be cooled and stored in the farm tank equipped with cooling and agitation. Other cooling and storage facilities may be used when approved in writing by the director on a case-by-case basis.

(h) Milk production shall be of sufficient quantity so that it can be properly agitated not later than at the completion of the first milking into the farm tank.

(i) Facilities for effectively sanitizing farm tanks shall be provided by the producer.

**History:** 2001, Act 267, Eff. Feb. 8, 2002 ;-- Am. 2008, Act 147, Eff. June 27, 2008

#### **288.691 Transporting milk; vehicles; duties of licensed bulk milk hauler/sampler; testing of milk by dairy plant, transfer station, or receiving station.**

Sec. 131.

(1) The department shall issue a license or permit to haul cans of milk to the owner or operator of a truck or vehicle used for hire to transport milk in cans from the farm to the dairy plant.

(2) The owner of all trucks used to transport milk in cans shall ensure that vehicles used comply with each of the following:

(a) Each vehicle is enclosed, constructed, and operated to protect the product from extreme temperature, dust, or other adverse conditions and is kept clean.

(b) If more than 1 tier of cans is carried, the vehicle contains decking boards or racks.

(c) Each vehicle contains cans that are used solely for the transportation of milk from the farm to the plant and for no other purpose.

(3) A licensed bulk milk hauler/sampler shall collect samples of milk from each load of milk he or she receives for transport pursuant to the grade A milk law of 2001. A milk tank truck driver engaged in direct farm pickup has direct responsibility for accompanying official samples.

(4) A licensed bulk milk hauler/sampler or milk transportation company shall do each of the following:

(a) Ensure that the exterior shell of each bulk milk pickup tanker is clean and free from open seams or cracks.

(b) Ensure that the interior shell of each bulk milk pickup tanker is stainless steel and constructed to prevent buckling, sagging, or incomplete drainage.

(c) Ensure that all product contact surfaces are smooth, easily cleaned, and maintained in good repair.

(d) Fully enclose the pump and hose cabinet with tight-fitting doors and provide inlet and outlet dust covers to give adequate protection from road dust.

(e) Ensure that each new and replacement bulk milk pickup tanker complies with sanitary standards. Each licensed or permitted milk tank truck shall be used solely for the transportation of milk or dairy products or for other food or potable commodities approved by the department.

(f) Deliver producer samples collected pursuant to this section to the dairy plant or receiving station as specified by the department.

(g) License or permit the milk tank truck pursuant to the grade A milk law of 2001.

(h) Ensure that milk over 96 hours old is not picked up from a dairy farm, with the exception of goat milk, which may be stored for 7 days, and sheep milk, which may be frozen for extended storage and transportation.

(5) The dairy plant, transfer station, or receiving station, or a laboratory selected by the dairy plant, transfer station, or receiving station that is approved by the department, shall test each producer's milk for each of the following, in accordance with standard methods for the examination of dairy products, referenced in 7 CFR part 58, adopted by reference, at least 4 out of every 6 months and report the following results to the department:

- (a) The presence of bacteria by standard plate count or plate-loop count.
- (b) The presence of a violative beta lactam drug residue using any test approved by the department or the food and drug administration for that purpose.
- (c) The presence of somatic cells using either a direct microscopic somatic cell count test or an electronic somatic cell count test.
- (d) Temperature at time of bulk hauler pickup on the farm or temperature of milk in cans when delivered to the dairy plant, transfer station, or receiving station.
- (e) Sediment as described in section 132(8)(e).

**History:** 2001, Act 267, Eff. Feb. 8, 2002 ;-- Am. 2008, Act 147, Eff. June 27, 2008

**288.692 Load samples; testing for violative drug residue; disposal of milk testing positive; identification of producer of milk testing positive; copies of test results; processing or availability of raw milk; milk exceeding certain limits; determining and remedying cause of illegal somatic cell count, temperature, or bacteria; permit suspension; reinstatement; shipping prohibited; duties of milk representative.**

Sec. 132.

(1) All milk shipped for processing or intended to be processed on the farm where it was produced shall be sampled and tested, prior to processing, for beta lactam drug residues. Collection, handling, and testing of samples shall be done according to procedures established by the department.

(2) A load sample shall be taken from the bulk milk pickup tanker after its arrival at the plant and prior to further commingling or processing. A load sample representing all of the can milk received on a shipment shall be collected at the plant, using a sampling procedure that includes milk from every can on the vehicle. A load sample taken by the processor shall be collected at the plant using a sampling procedure that includes all milk produced and received.

(3) A load sample that tests positive for a violative drug residue shall be retained according to standards established by the department as provided by law. The records of all sample test results shall be retained for a period of not less than 12 months.

(4) When a load sample tests positive for a violative drug residue, industry personnel shall notify the department immediately of the positive test result and of the intended disposition of the shipment of milk containing the violative drug residue. All milk testing positive for a violative drug residue shall be disposed of in a manner that removes it from the human or animal food chain, except when acceptably reconditioned under FDA compliance policy guidelines as approved by the department. Each individual producer sample represented in the violative drug residue load sample shall be singly tested as directed by the department to determine the producer of the milk sample testing positive for a violative drug residue. Identification of the producer responsible for producing the milk testing positive for a violative drug residue shall be reported immediately to the department. Milk shipment from the producer identified as the source of milk testing positive for a violative drug residue shall cease immediately and may resume only after a sample from a subsequent milking does not test positive for a violative drug residue.

(5) The dairy plant or receiving station responsible for a test described in this section shall deliver a copy of the test result to the department within 10 days after the dairy plant or receiving station receives the test result. The producer is required to insure the department is provided the required number of producer's milk quality test results. The dairy plant or receiving station shall maintain an original or copy of the test result for at least 1 year.

(6) Raw milk shall not be processed or made available for human consumption under any of the following circumstances:

- (a) The bacterial estimate for that milk that is not used to make cheese exceeds 500,000 per milliliter.
- (b) The bacterial estimate for that milk that is used to make cheese exceeds 750,000 per milliliter.
- (c) The milk contains a violative drug residue at a level that exceeds department limits for drug residue content.
- (d) The somatic cell count for that milk exceeds 1,000,000 cells per milliliter.
- (7) If a test under this section or section 131 indicates the presence of a violative drug residue at a level that exceeds department limits for drug residue content, the person who provided the milk for testing shall notify the producer of that milk and the department of the test result. Upon receipt of a notice under this subsection, the

producer of that milk and any processor of that milk shall ensure that the milk is not made available for human consumption and a processor shall not purchase additional milk from that producer until the department determines that the producer has eliminated the cause of the violative drug residue.

(8) A milk buyer who receives notice or determines that a producer's milk exceeds legal somatic cell levels, temperature standards, or bacteria levels shall do all of the following:

(a) Within 7 days after receipt of the notice, inspect the milk producer's facility and attempt to determine the cause or causes of the illegal somatic cell level, temperature level, or bacterial level.

(b) If the milk buyer determines that the producer's milk contains somatic cells, temperature, or bacteria at a level exceeding department limits for somatic cells, temperature, or bacteria in 2 of the 4 most recent tests of the producer's milk, notify the department and the producer of that determination.

(c) Obtain a subsequent sample of the producer's milk not less than 3 days or more than 21 days after the department inspects the producer's facility pursuant to this subsection.

(d) If the sample described in subdivision (c) contains somatic cells, or temperature or bacteria at a level exceeding department limits, notify the department and refrain from obtaining any further milk from the producer once the director suspends the producer's permit and until the permit is reinstated.

(e) The buyer shall examine sediment levels in each producer's milk using procedures described in standard methods, referenced in 7 C.F.R. part 58. Samples shall be from a bulk milk tank sample or from 1 or more cans. Sediment content shall be based on comparison with applicable charts of the United States department of agriculture sediment standards for milk and milk products, dated 1977, incorporated by reference. The buyer shall report the results of these sediment tests to the department.

(9) Immediately following receipt of notice described in subsection (8)(b), the department shall inspect a milk producer's facility and attempt to determine and remedy the cause of an illegal somatic cell count, temperature, or bacteria. The department shall provide the milk producer with a written warning notice of intent to suspend permit, and the notice shall remain in effect for the period during which 2 of the 4 most recent samples collected under this section remain at a level exceeding department limits. Another sample will be collected after 3 days but within 21 days. If any sample so collected exceeds the limit for that parameter while the milk producer is on warning notice, the milk producer's permit will be suspended until the problem is corrected to the satisfaction of the department, after being provided notice and an opportunity for an administrative hearing. Four samples shall then be taken at the rate of not more than 2 per week on separate days within a 3-week period, and the department shall reinstate the permit upon compliance with the appropriate standard.

(10) When a permit suspension has been due to a violation of the somatic cell count standard, the department may issue a temporary permit whenever a resampling of the herd's milk supply indicates the milk supply to be within acceptable limits as listed in section 70. Four samples shall then be taken at the rate of not more than 2 per week on separate days within a 3-week period, and the department shall reinstate the permit upon compliance with the appropriate standard listed in section 70.

(11) A dairy farm shall not ship milk for human consumption until the occurrence of each of the following:

(a) The dairy farm notifies the buyer and the department of its intent to become a milk shipper.

(b) The department inspects the dairy farm and completes a written report verifying that the dairy farm is in substantial compliance with this act.

(c) The department issues to the dairy farm a permit or temporary permit without charge.

(12) A representative of the milk buyer shall do each of the following:

(a) At least once annually, inspect all farms shipping milk to that dairy plant or receiving station.

(b) For each inspection described in subdivision (a), complete an inspection form approved by the department that identifies all minimum requirements for milk manufacturing.

(c) Deliver a copy of the completed inspection form to the owner or operator of the inspected farm, provide a copy of the completed inspection form to the department, and file a copy of that form with the records of the dairy plant or receiving station.

(d) If an inspection under this subsection establishes the existence of a condition that adversely affects milk quality, conduct a subsequent inspection not later than 30 days after the original inspection.

(13) If adverse conditions continue after an inspection described in subsection (12)(d), the representative of the milk buyer shall notify the department. The department may suspend or revoke the dairy farm's permit for failure to rectify a condition that adversely affects milk quality.

**History:** 2001, Act 267, Eff. Feb. 8, 2002

## **288.693 Examination of test results and inspection of dairy farms; frequency.**

Sec. 133.

The department may examine test results and inspect dairy farms as frequently as the department determines necessary to assure compliance with this act. Upon receipt of a written request from a person who purchases milk produced at a dairy farm subject to this act, the department shall provide that person with a copy of the department's inspection reports for the dairy farm.

**History:** 2001, Act 267, Eff. Feb. 8, 2002

#### **288.694 Failure of producer to meet minimum quality standards.**

Sec. 134.

(1) A producer who fails to meet minimum quality standards set forth in section 70 or correct insanitary farm conditions after the milk buyer or the department intervenes under this act is prohibited from selling milk for human consumption. After being prohibited, that producer may sell milk for human consumption only if the department determines that the conditions that caused the noncompliance have been corrected.

(2) A person shall not accept milk from a producer prohibited from selling milk under this section unless the department has determined that the condition causing the prohibition against that producer has been remedied.

**History:** 2001, Act 267, Eff. Feb. 8, 2002

#### **288.695 Incoming raw milk and manufactured dairy products; samples.**

Sec. 135.

Incoming raw milk and manufactured dairy products shall not exceed the standards set forth in section 70. Plants receiving commingled raw milk, heat treated, or pasteurized milk will be sampled a minimum of 4 out of every 6 months. If 2 of the last 4 samples exceed the standard given, a warning notice shall be issued and the plant shall remain on warning notice as long as any 2 of the last 4 consecutive samples exceed the limits. Another sample will be collected after 3 days but within 21 days. If any sample so collected exceeds the limit of that parameter while the plant is on warning notice, the plant permit will be suspended for the violative product until the problem is corrected, after being provided notice and an opportunity for an administrative hearing. Four samples shall then be taken at the rate of not more than 2 per week on separate days within a 3-week period, and the department shall reinstate the permit for that product upon compliance with the appropriate standard. Sterilized or aseptically processed milk and dairy products shall comply with processing and biological standards established by the scheduled process under 21 C.F.R. part 113.

**History:** 2001, Act 267, Eff. Feb. 8, 2002

#### **288.696 Pasteurized milk and dairy products; sale; processing as low-acid foods.**

Sec. 136.

(1) Only pasteurized milk and dairy products shall be offered for sale or sold, directly or indirectly, to the final consumer or to restaurants, grocery stores, or similar establishments except as specified in section 138.

(2) Milk and dairy products may be aseptically processed as low-acid foods provided they comply with the following requirements:

(a) All thermally processed milk and milk products that are packaged in hermetically sealed containers are processed in a milk processing facility licensed under this act, the grade A milk law of 2001, or the food law of

2000.

(b) All processors of acidified milk and milk products packaged in hermetically sealed containers comply with the regulations of the United States food and drug administration in 21 CFR part 108, 21 CFR part 110, and 21 CFR part 114.

(c) All thermally processed milk and milk products that are packaged in hermetically sealed containers comply with the regulations of the United States food and drug administration in 21 CFR part 108, 21 CFR part 110, and 21 CFR part 113.

(d) Hermetically sealed packages are handled to maintain product and container integrity.

**History:** 2001, Act 267, Eff. Feb. 8, 2002 ;-- Am. 2008, Act 147, Eff. June 27, 2008

## **288.697 "Pasteurization" and "pasteurized"; temperature and time relationships.**

Sec. 137.

The terms "pasteurization", "pasteurized", and similar terms mean the process of heating every particle of milk or dairy products to at least the temperature and time relationships given in this section as follows or by any equivalent process approved by the federal food and drug administration and accepted by the department for that purpose:

### **Minimum Vat Pasteurization Temperature and Time Standards**

|                                                                                                                   |                 |           |
|-------------------------------------------------------------------------------------------------------------------|-----------------|-----------|
| Whole milk; skim milk; cheese milk; whey; other products with less than 10% butterfat or without added sweeteners | 145°F<br>(63°C) | 30<br>min |
| Cream; condensed products; other products with 10% or more butterfat or with added sweeteners                     | 150°F<br>(66°C) | 30<br>min |
| Eggnog; frozen dessert mix                                                                                        | 155°F<br>(69°C) | 30<br>min |
| Cream for butter making                                                                                           | 165°F<br>(74°C) | 30<br>min |
| Milk or cream for plastic or frozen cream                                                                         | 170°F<br>(77°C) | 30<br>min |

### **Minimum High Temperature Short Time (HTST), Higher Heat Short Time (HHST) and**

### **Aseptic Pasteurization Temperature and Time Standards**

|                                         |                  |             |
|-----------------------------------------|------------------|-------------|
| Whole milk; skim milk; cheese milk;     | 161°F<br>(72°C)  | 15 sec      |
| whey; other products with less than 10% | 191°F<br>(89°C)  | 1.0<br>sec  |
| butterfat or without added sweeteners   | 194°F<br>(90°C)  | 0.5<br>sec  |
|                                         | 201°F<br>(94°C)  | 0.1<br>sec  |
|                                         | 204°F<br>(96°C)  | 0.05<br>sec |
|                                         | 212°F<br>(100°C) | 0.01<br>sec |
| Cream; condensed products; other        | 166°F<br>(75°C)  | 15 sec      |
| products with 10% or more butterfat     | 196°F<br>(92°C)  | 1.0<br>sec  |
| or with added sweeteners                | 199°F<br>(93°C)  | 0.5<br>sec  |
|                                         | 206°F<br>(97°C)  | 0.1<br>sec  |

|                                              |         |        |
|----------------------------------------------|---------|--------|
|                                              | 209°F   | 0.05   |
|                                              | (99°C)  | sec    |
|                                              | 217°F   | 0.01   |
|                                              | (103°C) | sec    |
| Eggnog; frozen dessert mix                   | 175°F   | 25 sec |
|                                              | (80°C)  |        |
|                                              | 180°F   | 15 sec |
|                                              | (83°C)  |        |
| Cream for butter making                      | 185°F   | 15 sec |
|                                              | (85°C)  |        |
| Milk or cream for plastic or<br>frozen cream | 190°F   | 15 sec |
|                                              | (88°C)  |        |
| Ultra-pasteurized products                   | 280°F   | 2 sec  |
|                                              | (138°C) |        |

**History:** 2001, Act 267, Eff. Feb. 8, 2002 ;-- Am. 2008, Act 147, Eff. June 27, 2008

#### **288.698 Manufacture of cheese; use of unpasteurized milk.**

Sec. 138.

Unpasteurized milk may be used in the manufacture of cheese only as allowed in 21 C.F.R. part 133, incorporated by reference, and if the cheese has been cured or ripened (aged) for more than 60 days at a controlled temperature of not less than 35 degrees Fahrenheit (2 degrees Celsius), or as specified by FDA.

**History:** 2001, Act 267, Eff. Feb. 8, 2002

#### **288.699 Milk and dairy products; pasteurization required; cooling; equipment; temperature; ingredients added before or after pasteurization; repasteurized condensed milk; design and operation of pasteurization equipment.**

Sec. 139.

(1) Except as provided in section 138, all milk and dairy products shall be pasteurized before entrance of the milk and dairy products into any of the following:

- (a) The evaporator or condensing equipment.
- (b) The cheese-making process.
- (c) The cheese culture making process.
- (d) The frozen dessert mix freezing.
- (e) The cultured product culturing.

(2) All dairy by-products from dairy plants used for feeding purposes for farm animals shall be pasteurized or be derived from pasteurized products when specified by the director.

(3) All milk and dairy products shall be pasteurized at the plant at which they are processed or dried, except for crystalized condensed whey and other high solids/low water activity products such as sweetened condensed milk, which shall be transported in tankers or containers dedicated to transporting pasteurized products. This subsection shall not be construed as banning the transportation in nondedicated tankers of pasteurized milk or dairy products to another processing or drying plant for repasteurization and processing or drying.

(4) All pasteurized milk and dairy products, except those to be cultured and those to receive immediate additional heat treatment in subsequent processes of manufacturing, shall be cooled immediately in approved equipment to temperature criteria specified in section 70 or maintained at or above 145 degrees Fahrenheit (63

degrees Celsius).

(5) All pasteurization equipment shall comply with sanitary standards and shall be tested by the department every 3 months for proper construction and operation.

(6) The airspace temperature in a vat pasteurizer shall be maintained at least 5°F (2.8°C) above the minimum pasteurization temperature for the product being pasteurized during the entire 30-minute vat pasteurization cycle.

(7) All milk and milk products (i.e., milk solids, whey, nonfat dry milk, condensed milk, cream, skim milk, etc.), eggs, egg products, cocoa, cocoa products, emulsifiers, stabilizers, vitamins, and liquid sweeteners shall be added prior to pasteurization. All such additions shall be made in a sanitary manner, which prevents the contamination of the added ingredient or the milk or milk product. Ingredients that may be added after pasteurization are those flavoring ingredients and other ingredients that have been found to be safe and suitable and include:

(a) Ingredients permitted by the CFR standards of identity when considering a standardized milk or milk product.

(b) Fresh fruits and vegetables added to cultured milk and milk products provided the resultant equilibrium pH level (4.6 or below when measured at 24°C (75°F)) of the finished product is reached without undue delay and is maintained during the shelf life of the product.

(c) Ingredients subjected to prior heating or other technology that has been demonstrated to the United States food and drug administration to be sufficient to destroy or remove pathogenic microorganisms.

(d) Ingredients having a water activity (Aw) of 0.85 or less.

(e) Ingredients having a high acid content (pH level of 4.6 or below when measured at 24°C (75°F)) or high alkalinity (pH level greater than 11 when measured at 24°C (75°F)).

(f) Roasted nuts.

(g) Dry sugars and salts.

(h) Flavor extracts having a high alcohol content.

(i) Safe and suitable bacterial cultures and enzymes.

(j) Ingredients that have been found to be safe and suitable by the United States food and drug administration.

(8) All milk and milk products shall be pasteurized, prior to the entrance into RO, UF, evaporator, or condensing equipment, and shall be performed in the milk plant where the processing is done, except that the following apply:

(a) If the product is whey, pasteurization is not required if the product is acid whey (pH less than 4.7) or if it is processed in RO or UF equipment at temperatures at or below 7°C (45°F).

(b) If the product is raw milk for pasteurization, the product may be concentrated by the use of RO or UF membrane filtration without pasteurization, prior to entrance into the equipment, provided that the following sampling, testing, design, installation, and operational criteria are met:

(i) Prior to processing, all raw milk supplies are sampled and tested for antibiotic residues in accordance with the provisions of this law.

(ii) The RO or UF filtration system is designed and operated to assure that milk or milk product temperature is maintained at or below 7°C (45°F) throughout the process, provided that the product temperature may rise above 7°C (45°F) for a period of not more than 15 minutes, further provided that should the product temperature rise above 10°C (50°F), the product shall be immediately diverted until the product is again below 7°C (45°F). Diverted product shall be discarded, immediately cooled to below 7°C (45°F), or immediately pasteurized.

(iii) The RO or UF system must be equipped with temperature monitoring and recording devices that comply with the applicable specifications outlined in the grade A milk law of 2001. At a minimum, milk or milk product temperature shall be monitored and recorded prior to entering the system, prior to entering each stage of the modules in series that contain cooling, and the retentate stream prior to any final cooler and upon exiting the system.

(iv) If the RO or UF system is not designed, installed, and operated in accordance with the above noted criteria, the raw milk or milk product must be pasteurized prior to entering the RO or UF system.

(9) All condensed milk and milk products transported to a milk plant for drying shall be repasteurized at the milk plant where they are dried.

(10) If condensed whey containing at least 40% total solids has been partially crystallized by cooling, it may be transported to a separate milk plant for drying without repasteurization, provided that the following conditions are complied with:

(a) The condensed, partially crystallized whey is cooled and maintained at 7°C (45°F) or less.

(b) Milk tank trucks used to transport the condensed, partially crystallized whey are washed and sanitized immediately prior to filling and are sealed after filling until unloading.

(c) Separate unloading pumps and pipelines are provided and used only for the unloading of the condensed, partially crystallized whey. Such pumps and pipelines shall be cleaned and sanitized as a separate cleaning circuit.

(11) The design and operation of pasteurization equipment and all appurtenances thereto shall comply with the applicable standards, specifications, and operational procedures of this act.

**History:** 2001, Act 267, Eff. Feb. 8, 2002 ;-- Am. 2008, Act 147, Eff. June 27, 2008

## **288.700 Manufacturing milk into dairy product; duties of plant owner or operator.**

Sec. 140.

A person who owns or operates a plant receiving milk for manufacturing into a dairy product shall do each of the following:

- (a) Maintain premises in a clean and orderly condition.
- (b) Prevent the emission of an odor, smoke, or pollutant within the plant that may adulterate or negatively impact the quality of the milk or dairy products, as determined by the department.
- (c) Construct plant driveways and adjacent vehicular traffic areas using concrete, asphalt, or other material approved by the department for minimizing dust and mud and maintain those sites in good repair.
- (d) Construct a drainage system that provides for rapid, nonhazardous water drainage from the plant, driveways, adjacent traffic areas, and surface water sites located on plant property, in a manner that prevents the development of a nuisance.
- (e) Ensure that each plant structure is of sound construction and kept in good repair to prevent the entering or harboring of rodents, birds, insects, vermin, dogs, and cats.
- (f) Ensure that all exterior wall openings for pipes are effectively sealed around the pipes or fitted with tight metal collars.
- (g) Ensure that all openings to the outdoors, including doors, windows, skylights, and transoms, are effectively maintained and protected or screened against the entrance of insects, rodents, birds, dust, and dirt. On new construction, window sills should be slanted downward at a 45-degree angle.
- (h) Ensure that all exterior doors fit properly and that all hinged, exterior screen doors open outward.
- (i) Ensure that all conveyor and other exterior openings are effectively maintained and protected by the use of doors, screens, flaps, fans, or tunnels to prevent the entrance of insects, rodents, birds, dust, and dirt.
- (j) Ensure that outside openings for sanitary pipelines are covered when not in use.
- (k) Ensure that wall, ceiling, partition, and post surfaces of each room in which a milk or dairy product is stored, or in which a dairy utensil is washed or stored, are smoothly finished in a light colored material impervious to moisture.
  - (l) Refinish a surface described in subdivision (k) as frequently as necessary to maintain a smooth finish.
  - (m) Ensure that the floor of each room in which a milk or dairy product is processed, manufactured, packaged, handled or stored, or in which a dairy utensil is washed or stored, is each of the following:
    - (i) Except as provided in subdivision (n), constructed of an impervious material approved by the department.
    - (ii) Maintained in good repair.
    - (iii) Graded to prevent the forming of standing water or milk.
    - (iv) Equipped with drains containing properly constructed and maintained traps and designed to prevent sewage backup into drain lines and the floor of the plant.
  - (n) Store new containers, supplies, and certain packaged products in a room or rooms with floors described in subdivision (m) or, upon department approval, in a room or rooms with a clean, smooth wood floor.
- (o) Equip the plant with adequate and well-distributed lighting of at least 50 foot-candles where dairy products are graded or examined for condition and quality such as a can milk receiving room dumping area; 20 foot-candles at working surfaces in rooms for manufacturing, processing, or packaging of dairy products or for washing of equipment and utensils; 5 foot-candles in all other rooms, including storage rooms and coolers; or as specified by the director. Light intensity shall be measured at a distance of 30 inches from the floor with the use of a light meter.
- (p) Protect from potential broken glass contamination all milk, dairy products, or dairy product ingredients located beneath a suspended lightbulb, fixture, window, or other glass.
- (q) Ensure that each room and compartment has adequate heating, air-conditioning, and ventilation to maintain sanitary conditions and provide exhaust or inlet fans, vents, hoods, and temperature and humidity control facilities as needed to minimize or eliminate undesirable room temperatures, odors, moisture, condensation, or mold.
- (r) Install adequate air filtering devices on air inlet fans to prevent the entrance of dirt and dust and ensure that each exhaust outlet is screened or provided with self-closing louvers to prevent the entrance of insects when not in use.
- (s) Clean and maintain in good repair each ventilation system.
- (t) Ensure that each room and compartment in which a raw dairy material, packaging material, ingredient supplies, or dairy product is manufactured, handled, packaged, or stored is designed, constructed, and maintained to assure a stable and appropriate temperature and clean operating conditions.
- (u) Separate a processing room from a bulk milk receiving room by walls or partitions and a solid, tight-fitting, self-closing door.
- (v) Keep processing rooms free from equipment not regularly used.

- (w) Maintain coolers and freezers containing milk or dairy products as follows:
  - (i) At temperature and humidity levels that protect cooler or freezer contents and minimize mold growth on or within the cooler or freezer.
  - (ii) In a condition that protects cooler or freezer contents from rodents, insects, and vermin.
  - (iii) With shelves that are clean and dry.
  - (iv) With equipment for the collection and disposal of condensate.
- (x) Maintain a supply room used for the storing of packaging materials and miscellaneous ingredients in a clean, dry condition, free from insects, rodents, and mold, and maintained in good repair.
- (y) Protect items stored in a supply room from dust, dirt, or other extraneous matter and arrange those items on racks, shelves, or pallets to permit cleaning and inspection of the room and access to the items.
- (z) Label, segregate, and store insecticides, rodenticides, cleaning compounds, and other nonfood products in a separate supply room or cabinet away from milk, dairy products, ingredients, or packaging supplies.
- (aa) Separate a boiler room and a shop room from other rooms where milk and dairy products are processed, packaged, handled, or stored and keep a boiler room and a shop room orderly and reasonably clean.
- (bb) Maintain conveniently located and adequate toilet facilities in the processing plant that comply with the following:
  - (i) Are not open directly into any room in which milk or dairy products are processed, packaged, or stored.
  - (ii) Have doors that are self-closing and ventilation provided by mechanical means or screened openings to the outside air.
  - (iii) Have fixtures that are kept clean and in good repair.
- (cc) Furnish each employee with a locker or other suitable facility that is kept clean and orderly.
- (dd) Conspicuously post signs in each toilet and locker room directing employees to wash their hands before returning to work.
- (ee) Maintain and adequately equip a laboratory consistent with the size and type of plant and the volume of dairy products manufactured and staff that laboratory with personnel qualified and trained for quality control and analytical testing.
- (ff) Maintain a central laboratory serving more than 1 plant only if that laboratory is approved by the department and is conveniently located to the dairy plants.
- (gg) Provide adequate sanitary starter facilities for the handling of starter cultures.
- (hh) Provide an adequate supply of both hot and cold water of safe and sanitary quality, protected against contamination and pollution, with adequate facilities for proper distribution of water throughout the plant. Upon department approval, water from other facilities may be used for boiler feed water and condenser water if water lines are completely separated from the plant water supply and the equipment constructed and controlled to preclude contamination of product contact surfaces.
  - (ii) Prevent any cross-connection between safe water supply and either an unsafe or questionable water supply or another source through which contamination of the safe water supply is possible.
- (jj) Make an examination of the sanitary water supply and recirculated product cooling mediums at least every 6 months or as often as necessary to determine purity and suitability for use in manufacturing dairy product systems. Such tests shall be made and approved by the department except for supplies that are regularly tested for purity and bacteriological quality. The most recent results of all water and cooling medium tests shall be kept on file at the plant for which the test was performed.
- (kk) Ensure that the location, construction, and operation of a well complies with the safe drinking water act, 1976 PA 399, MCL 325.1001 to 325.1023.
- (ll) Provide conveniently located drinking water facilities of a sanitary type in the plant.
- (mm) Provide convenient hand-washing facilities, including hot and cold running water, soap or other detergents, sanitary single-service towels or air dryers, and covered trash containers for used towels or other wastes and locate those facilities in or adjacent to toilet and dressing rooms and convenient to the areas where milk and dairy products are handled, processed, or stored or where equipment is cleaned, sanitized, and stored.
- (nn) Prohibit hand-washing in vats used for the cleaning of equipment or utensils.
- (oo) Supply steam in sufficient volume and pressure for satisfactory operation of each applicable piece of equipment and ensure each of the following:
  - (i) That culinary steam used in direct contact with milk or dairy products complies with sanitary standards and is free from harmful substances or extraneous material.
  - (ii) That only nontoxic boiler compounds are used.
  - (iii) That steam traps, strainers, and condensate traps are used as necessary to ensure a safe steam supply.
- (pp) Ensure that air under pressure that comes in contact with milk or dairy products or any product contact surface complies with sanitary standards and ensure that the air under pressure at the point of application is free from volatile substances, which may impart any flavor or odor to the products, and extraneous or harmful substances.
- (qq) Properly dispose of wastes from the plant and premises and ensure that the plant sewer system has sufficient capacity to readily remove all wastes from the various processing and plant operations so as not to contaminate

products or equipment or create a nuisance or public health hazard.

(rr) Ensure that containers used for the collection and holding of wastes are constructed of metal, plastic, or other equally impervious material and kept covered with tight-fitting lids and ensure that solid wastes are disposed of regularly and the containers and surroundings kept reasonably clean.

(ss) In accordance with department policy, periodically inspect and analyze dairy products being processed at the plant during each process.

(tt) Submit detailed plans to the department for approval before commencing new construction, remodeling, or equipment changes. Plans for new construction or remodeling shall include a plan that provides for operational or physical isolation of the milk plant from sources of potential product contamination caused by animal production facilities located in close proximity to the milk plant. Retail or public viewing areas shall be separated from processing areas by a solid floor-to-ceiling partition, except that other equally effective means of protection may be used, as approved by the director.

(uu) Provide adequate electrical power for on-demand support of lighting, cooling, heating, agitation, and ventilation systems.

**History:** 2001, Act 267, Eff. Feb. 8, 2002 ;-- Am. 2008, Act 147, Eff. June 27, 2008

### **288.701 Manufacturing milk into dairy product; additional duties of plant owner or operator.**

Sec. 141.

A person who owns or operates a plant receiving milk for manufacturing into a dairy product shall do all of the following:

(a) Ensure that the equipment and utensils used for the processing of milk and dairy products are constructed to be readily demountable when the department determines necessary for cleaning and sanitizing.

(b) Ensure that the product contact surfaces of all equipment and utensils, including holding tanks, pasteurizers, coolers, vats, agitators, pumps, sanitary piping and fittings, and any specialized equipment, are constructed of stainless steel or other equally corrosion-resistant material meeting various sanitary standards for fabrication of dairy equipment.

(c) Ensure that nonmetallic parts having product contact surfaces meet sanitary standards.

(d) Ensure that all equipment and piping is designed and installed to be easily accessible for cleaning, kept in good repair, and free from cracks and corroded surfaces.

(e) Ensure that new or rearranged equipment is kept away from any wall or spaced in a manner that facilitates proper cleaning and good housekeeping.

(f) Ensure that all parts or interior surfaces of equipment, pipes not CIP cleaned, or fittings, including valves and connections, are accessible for inspection and meet sanitary standards.

(g) Ensure that all new or replacement milk and dairy products pumps meet sanitary standards.

(h) Ensure that all CIP systems comply with sanitary standards.

(i) Ensure that weigh cans and receiving tanks meet sanitary standards established or approved by the department, are easily accessible for interior or exterior cleaning, and are elevated above the floor and protected sufficiently with the necessary covers to prevent contamination from splash, condensate, and drippage.

(j) Ensure that each can washer has sufficient capacity and ability to discharge a clean, dry can and cover and is kept properly timed in accordance with the instructions of the manufacturer.

(k) Ensure that each water and steam line supplying a can washer maintains a reasonably uniform pressure and if necessary is equipped with pressure-regulating valves.

(l) Ensure that product storage tanks or vats comply with all of the following:

(i) Meet sanitary standards.

(ii) Regarding the entire interior surface, agitator, and all appurtenances of each tank or vat, are accessible for thorough cleaning and inspection.

(iii) Regarding any opening at the top of each tank or vat, including the entrance of the shaft, is suitably protected against the entrance of dust, moisture, insects, oil, or grease.

(iv) Regarding sight glasses, if used, are sound, clear, and in good repair.

(v) Regarding a vat with hinged covers, is designed so that moisture or dust on the surface cannot enter the vat when the covers are raised.

(vi) Regarding storage tanks or vats equipped with air agitation, contain a properly installed air agitation system that meets sanitary standards.

(vii) Regarding storage tanks and vats intended to hold dairy products for longer than 8 hours, are equipped with

adequate refrigeration or adequate insulation.

(viii) Are equipped with thermometers in good operating order. All raw milk storage tanks or silos installed after the effective date of this act that are not cleaned daily shall be provided with an approved recording thermometer and shall be cleaned and sanitized at least every 72 hours except as approved by the director in writing, on a case-by-case basis.

(m) Ensure that all product contact surfaces of separators are free from rust and pits and, if practicable, are of stainless steel or other equally noncorrosive metals.

(n) Ensure that each batch pasteurizer has a temperature indicator and recording device and conforms to sanitary standards and complies with the following, as applicable:

(i) Has an air-space indicating thermometer that is accurate within 1.0 degree Fahrenheit (0.5 degree Celsius) for the proper temperature range at least 1 inch above the surface of the products pasteurized in a vat to ensure that foam in the vat or air above the product pasteurized receives the minimum temperature treatment required by the department.

(ii) Has a recording thermometer that is accurate within 1.0 degree Fahrenheit (0.5 degree Celsius) for the proper temperature range.

(iii) Has surface coolers equipped with leak-proof gaskets and connections and with hinged or removable covers for the protection of the product and has edges of the covers that are designed to divert condensate on non-product-contact surfaces away from product contact surfaces. The use of surface coolers will be allowed only with specific written approval of the director on a case-by-case basis.

(iv) Use recording thermometers accurate within 2.0 degrees Fahrenheit (1.0 degree Celsius) to record holding and cooling time.

(v) Provides long-stem or equally acceptable indicating thermometers that are accurate within 0.5 degree Fahrenheit (0.25 degree Celsius) for the applicable temperature range, for checking the temperature of pasteurization and cooling of products in vats and checking the accuracy of recording thermometers.

(o) Ensure that high-temperature, short-time pasteurization equipment is tested and sealed by the department upon installation and quarterly thereafter and complies with sanitary standards and with the following, as applicable:

(i) In accordance with manufacturer recommendations, has in each high-temperature, short-time pasteurizer a short-stem or equally acceptable indicating thermometer that is accurate within 0.5 degree Fahrenheit (0.25 degree Celsius) for the applicable temperature range, to be used for checking the accuracy of recording thermometers.

(ii) Has in each storage tank for which the department requires a temperature reading an indicating thermometer that is accurate within 2.0 degrees Fahrenheit (1.0 degree Celsius).

(iii) Provides that all new or replacement plate-type heat exchangers meet sanitary standards, all gaskets are tight and kept in good repair, and plates are opened at sufficiently frequent intervals to determine if the equipment is clean and in satisfactory condition.

(p) Ensure compliance with each of the following:

(i) Internal return tubular heat exchangers meet sanitary standards.

(ii) Pumps used for milk and dairy products are of the sanitary type and constructed to meet sanitary standards.

(iii) Unless a pump is specifically designed for effective cleaning in place, pumps are dismantled and cleaned after use.

(iv) Homogenizers and high-pressure pumps of the plunger type comply with sanitary standards.

(v) New equipment and replacements, including all plastic parts and rubber and rubberlike materials for parts and gaskets having product contact surfaces, meet sanitary standards.

(vi) A vacuum chamber, if used, is made of stainless steel or other equally noncorrosive material; is constructed to facilitate cleaning with all product contact surfaces accessible for inspection; is equipped with a vacuum breaker and a check valve at the product discharge line; uses only steam that meets the sanitary standards; regulates incoming steam supply by an automatic valve that cuts off the steam supply if the flow diversion valve of the high-temperature short-time pasteurizer is not in the forward flow position; and uses only condensers equipped with a water level control and an automatic safety shutoff valve.

(vii) Bulk storage and distribution equipment in dairy plants for handling liquid sweetening agents, edible oils, or other ingredients consists of suitable metals, alloys, or other materials that will withstand corrosive action by the ingredients and the equipment and ingredients are protected from contamination. Pipelines containing liquid sweetening agents and liquid chocolate remain flooded with the ingredient to prevent mold growth or may be dismantled and washed.

(q) Ensure that the plant is provided with adequate ventilation, that is acceptable to the director, to minimize possible product contamination with condensation, dust, and odors.

**History:** 2001, Act 267, Eff. Feb. 8, 2002

## **288.702 Dairy plant employee; requirements.**

Sec. 142.

A person employed by a dairy plant shall comply with all of the following, if applicable:

- (a) Wash his or her hands before beginning work and upon returning to work after using toilet facilities, eating, smoking, or otherwise soiling his or her hands.
- (b) Keep his or her hands clean and follow good hygienic practices while on duty.
- (c) Refrain from using tobacco in any form in each room and compartment where any milk, dairy product, or other supplies are prepared, stored, or otherwise handled.
- (d) Wear clean, white, or light-colored washable outer garments or apron and a cap or hairnet while engaged in receiving, testing, processing milk or dairy products, packaging, or handling dairy products.
- (e) If afflicted with a communicable disease, not enter any room or compartment where milk and dairy products are prepared, manufactured, or otherwise handled.
- (f) If he or she has a discharging or infected wound, sore, or lesion on hands, arms, or other exposed portion of the body, not work in any dairy processing rooms or in any capacity resulting in contact with the processing or handling of dairy products.
- (g) Each employee whose work brings him or her in contact with the processing or handling of dairy products, containers, or equipment shall comply with requirements for employee health as specified under sections 2-201.11 to 2-201.15 of the food code adopted under the food law of 2000.

**History:** 2001, Act 267, Eff. Feb. 8, 2002 ;-- Am. 2008, Act 147, Eff. June 27, 2008

## **288.703 Owner or operator of dairy plant; duties; package labels; advertising.**

Sec. 143.

(1) A person who owns or operates a dairy plant shall do all of the following:

- (a) Make available enclosed or covered facilities for washing and sanitizing of milk trucks, piping, and accessories at central locations or at sites that receive or ship milk or dairy products in milk transport tanks.
- (b) Transfer milk under sanitary conditions from milk tank trucks through stainless steel piping or approved tubing and cap the sanitary piping and tubing when not in use.
- (c) Hold and process milk under conditions and at temperatures that will avoid contamination and rapid deterioration.
- (d) Refrain from using drip milk from can washers or any other source for the manufacture of dairy products.
- (e) Maintain milk in bulk storage tanks within the dairy plant in a manner that minimizes bacterial increase and, except when authorized by the department, maintain that milk at 45 degrees Fahrenheit (7 degrees Celsius) or lower until processing begins.
- (f) Ensure that the bacteriological content of commingled raw milk in storage tanks is 1,000,000 or less total bacteria per milliliter (300,000 per milliliter or less total bacteria in raw milk for frozen desserts).
- (g) Ensure the proper pasteurization of each particle of milk or dairy product.
- (h) Test samples of milk or a dairy product for phosphatase by the method prescribed by the department.
- (i) Take all necessary precautions to prevent contamination or adulteration of the milk or dairy products during manufacturing.
- (j) Make available for department inspection all substances and ingredients used in the processing or manufacturing of any dairy product and ensure that those substances and ingredients are wholesome and practically free from impurities.
- (k) Ensure that milk or dairy products comply with the standards in section 70, and standards listed for the milk products in title 21 of the code of federal regulations, if applicable.
- (l) Maintain the equipment, sanitary piping, and utensils used in receiving and processing of the milk and maintain manufacturing and handling of the product in a sanitary condition.
- (m) Ensure that sanitary seal assemblies are kept clean and are removable on all agitators, pumps, and vats and inspect those assemblies at regular intervals.
- (n) Except as otherwise provided in this act, dismantle all equipment that is not designed for mechanical or clean-in-place cleaning, and thoroughly clean and sanitize all equipment after each day's use using cleaners, detergents, sanitizing agents, or other similar materials approved for dairy or food service use that will not contaminate or adversely affect the dairy products.

- (o) Refrain from using steel wool or metal sponges in the cleaning of any dairy equipment or utensils.
- (p) Immediately before use, subject all product contact surfaces to an effective sanitizing treatment except where dry cleaning is permitted.
- (q) Store utensils and portable equipment used in processing and manufacturing operations above the floor in clean, dry locations and in a self-draining position on racks constructed of impervious corrosion-resistant material.
- (r) Use CIP cleaning, including spray-ball systems, only on equipment and pipeline systems which have been designed and engineered for that purpose and employ careful attention to the proper procedures to assure satisfactory cleaning.
- (s) Ensure that all CIP installations comply with sanitary standards and post and follow the established cleaning procedure.
- (t) Following the circulation of the cleaning solution, thoroughly rinse and examine the equipment and lines for effectiveness of cleaning and ensure that all caps, ends, pumps, plates, and tee ends are opened or removed and brushed clean.
- (u) Immediately before starting the product flow after the cleaning procedure described in subdivision (s), treat the product contact surfaces with an approved sanitizer.
- (v) Clean, sanitize, and dry milk cans and lids before returning to producers and inspect, repair, or replace cans and lids to substantially exclude from use cans and lids showing open seams, cracks, rust, milkstone, or any unsanitary condition.
- (w) Maintain washers in a clean and satisfactory operating condition and keep each washer free from accumulation of scale or debris that may adversely affect the efficiency of the washer.
- (x) For all newly licensed or newly or extensively remodeled facilities, provide a covered or enclosed receiving, washing, and sanitizing facility at each site that receives or ships milk or dairy products in milk tank trucks, or provide means to protect the milk during the sampling and transferring process that are acceptable to the director. The dairy plant is not required to provide milk tank truck wash facilities if milk tank trucks are cleaned and sanitized at another approved facility.
- (y) Clean and sanitize milk tank trucks, sanitary piping, fittings, and pumps at least once each day after use and, if those items are not to be used immediately after the emptying of a load of milk, promptly wash those items after use and give bactericidal treatment immediately before use.
- (z) Identify each tank that is washed and sanitized by attaching a tag to the outlet valve, bearing all of the following information:
  - (i) Plant and specific location where cleaned.
  - (ii) Date and time of washing and sanitizing and identification number of the tank.
  - (iii) The name of each person who washed and name of each person who sanitized the tank.
- (aa) Maintain on the tank the tag attached pursuant to subdivision (z) until the tank is again washed and sanitized and ensure the receiving plant retains the tag for at least 15 days or as the department may otherwise direct.
- (bb) Wash all windows, glass, partitions, skylights, walls, ceilings, and doors as often as necessary to keep them clean and replace cracked or broken glass promptly.
- (cc) Wipe or vacuum shelves and ledges as often as necessary to keep them free from dust and debris and properly dispose of the material picked up by a vacuum cleaner to destroy any insect that may be present.
- (dd) In addition to any commercial pest control service, if one is utilized, designate an employee to perform a regularly scheduled insect and rodent control program.
- (ee) Properly label, handle, store, and use poisonous substances, insecticides, and rodenticides in such a manner as not to create a public health hazard.
- (ff) Maintain plant records, make those records available at all reasonable times for department inspection, and, in accordance with each of the following, send producer quality tests contained in those records to the department within 10 days of the completion of those tests:
  - (i) Retain for 12 months sediment, temperature, drug residue, somatic cell, and bacterial test results on raw milk from each producer.
  - (ii) Retain for a period of 12 months routine test results.
  - (iii) Retain for 12 months retest results, if an initial test places the milk producer in permit suspension status.
  - (iv) Retain for 12 months rejections of raw milk over the no. 3 sediment standard for quality as established by the United States department of agriculture.
  - (v) Retain for 6 months pasteurization recorder charts.
  - (vi) Retain for at least 6 months CIP recording charts.
  - (vii) Retain the most recent water sample and recirculated cooling medium test results for at least 12 months.
- (gg) Package milk and dairy products in department-approved containers and packaging materials that do or are each of the following:
  - (i) Cover and protect the quality of the contents during storage and handling under normal conditions.
  - (ii) As uniform in weight and shape within each product size or style as is practical.
  - (iii) Provide low permeability to air and vapor to prevent the formation of mold growth and surface oxidation.
  - (iv) Contain a wrapper resistant to puncturing, tearing, cracking, or breaking under normal conditions of

handling, shipping, and storage.

(v) Sealed in conformity with the instructions of the manufacturer.

(hh) Conduct the packaging of each dairy product or the cutting and repackaging of each dairy product under sanitary conditions prescribed by the department and ensure that each packaging room, item of equipment, and packaging material is practically free from mold and bacterial contamination by testing the level of contamination in a manner approved by the department.

(ii) Dry store a product requiring dry storage at least 18 inches from any wall in an aisle, row, or section and lot in an orderly manner rendering the product easily accessible for inspection.

(jj) Regularly clean each room used for product storage and ensure that each stored product is free from any other foreign products, mold, absorbed odors, or vermin or insect infestation.

(kk) Maintain control of humidity and temperature in each storage room at all times to prevent conditions detrimental to a stored product and container.

(ll) Store a finished product requiring refrigeration on shelves, dunnage, or pallets at a temperature that will best maintain the initial quality of the product and ensure that the product is not exposed to any substance from which the product may absorb a foreign odor or be contaminated by drippage or condensation.

(mm) Purchase and store caps, parchment paper, wrappers, liners, gaskets, and single-service sticks, spoons, covers, and containers only in sanitary tubes, wrappings, or cartons that are kept in a clean, dry place until used and handled in a sanitary manner.

(nn) Packaged fluid dairy products that exceed the sell-by date shall not be reused in any dairy products regulated by this act or the grade A milk law of 2001 unless the department approves a protocol for such reprocessing. The protocol shall include consideration of storage temperatures, bacterial counts, age past sell-by date, sight and smell grading qualities, added ingredients, and any other factors considered critical by the director.

(oo) Packaged fluid dairy products that have left the control of a dairy plant but are returned or delivered to a dairy plant, commonly referred to as "returned products", shall not be reprocessed into milk or milk products regulated under this act or the grade A milk law of 2001.

(2) A person who owns or operates a dairy plant shall legibly mark or label each commercial bulk package containing dairy products manufactured under this act with the name of the product, quantity of contents, name and address of processor, manufacturer, or distributor, ingredients including known allergens, manufacturer lot number, plant code issued by the department identifying where the product was manufactured, and with any other identifying information required by the director. All manufactured dairy products shall meet any applicable definitions and standards of identity as promulgated under 21 CFR parts 131 to 135.

(3) Retail packages shall be labeled as specified in 21 CFR part 101, which is adopted by reference, and as specified under the food law of 2000.

(4) Commercial bulk packages of frozen desserts with removable lids shall be labeled on the body of the container.

(5) Bulk shipments of milk or dairy products shall be accompanied by a bill of lading containing the following information:

(a) Shipper's name, address, and permit number.

(b) Permit identification of hauler if not an employee of the shipper.

(c) Point of origin of shipment.

(d) Tanker identity number.

(e) Name of product.

(f) Weight of product.

(g) Grade of product.

(h) Temperature of product.

(i) Date of shipment.

(j) Name of supervising regulatory agency at the point of origin.

(k) Whether the contents are raw, pasteurized, or, in the case of cream, lowfat, or skim milk, whether it has been heat treated.

(l) Seal number on inlet and outlet.

(6) Cheese and cheese products that are unpasteurized shall be labeled according to the requirements of 21 CFR part 133 and this section.

(7) Milk and milk products shall be advertised as specified under the food law of 2000.

**History:** 2001, Act 267, Eff. Feb. 8, 2002 ;-- Am. 2008, Act 147, Eff. June 27, 2008