



GRADE A
PASTEURIZED MILK
REGULATIONS

Promulgated by:

MISSOURI
STATE
MILK BOARD

Title 2 — DEPARTMENT OF AGRICULTURE

Division 80 — State Milk Board

Chapter 2 — Grade A Pasteurized Milk Regulations

2 CSR 80-2.010 Definitions

PURPOSE: This rule defines terms used in the regulations of the State Milk Board. This rule corresponds with Part II, Section 1 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) The following definitions shall apply to the interpretations and enforcement of sections 196.931–196.959, RSMo (1986).

(A) Milk is the product, defined in Code of Federal Regulations, Title 21, section 131.110.

Note: Applicable sections of parts 131 – 133 are included in Appendix L, of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

1. Goat milk is the lacteal secretion, practically free from colostrum, obtained by the complete milking of healthy goats. The word “milk” shall be interpreted to include goat milk.

2. Breed milk is milk from a herd of cows where at least ten percent (10%) of the herd is registered pure-bred and the remainder at least high grade individuals of the same breed. The word milk shall be interpreted to include breed milk;

(B) Cream is the product defined in the Code of Federal Regulations, Title 21, section 131.3(a).

1. Light cream is the product defined in the Code of Federal Regulations, Title 21, section 131.155.

2. Light whipping cream is the product defined in the Code of Federal Regulations, Title 21, section 131.157.

3. Heavy cream or heavy whipping cream is the product defined in the Code of Federal Regulations, Title 21, section 131.150.

4. Whipped cream is the product defined in the Code of Federal Regulations, Title 21, section 131.150 or 131.157, into which air or gas has been incorporated.

5. Whipped light cream is the product defined in the Code of Federal Regulations, Title 21, section 131.155, into which air or gas has been incorporated.

6. Sour cream or cultured sour cream is the product defined in the Code of Federal Regulations, Title 21, section 131.160.

7. Acidified sour cream is the product defined in the Code of Federal Regulations, Title 21, section 131.162;

(C) Half-and-half is the product defined in the Code of Federal Regulations, Title 21, section 131.180.

1. Sour half-and-half or cultured sour half-and-half is the product defined in the Code of Federal Regulations, Title 21, section 131.185.

2. Acidified sour half-and-half is the product defined in the Code of Federal Regulations, Title 21, section 131.187;

(D) Reconstituted or recombined milk and milk products shall mean milk or milk products as defined in this section which result from reconstituting or recombining of milk constituents using potable water when appropriate;

(E) Concentrated milk is a fluid product, unsterilized and unsweetened, resulting from the removal of a considerable portion of the water from milk, which, when recombined with potable water in accordance with instructions printed on the container, results in a product conforming with the milkfat and milk solids-not-fat levels of milk as previously defined.

1. Concentrated milk products shall be taken to mean and to include homogenized concentrated milk, concentrated skim milk, concentrated lowfat milk and similar concentrated products made from concentrated milk or concentrated skim milk and which, when combined with potable water in accordance with instructions printed on the container, conform with the definitions of the corresponding milk products in this section.

2. Frozen milk concentrate is a frozen milk product with a composition of milkfat and milk solids-not-fat in such proportions that when a given volume of concentrate is mixed with a given volume of water, the reconstituted product conforms to the milkfat and milk solids-not-fat requirements of whole milk. In the manufacturing process, water may be used to adjust the primary concentrate to the final desired concentration. The adjusted primary concentrate is pasteurized, packaged and immediately frozen. This product is stored, transported and sold in the frozen state;

(F) Skim milk is the product defined in the Code of Federal Regulations, Title 21, section 131.145;

(G) Lowfat milk is the product defined in the Code of Federal Regulations, Title 21, section 131.135;

(H) Eggnog is the product defined in the Code of Federal Regulations, Title 21, section 131.170;

(I) Buttermilk is a fluid product resulting from the manufacture of butter from milk or cream. It contains not less than eight and one-quarter percent (8 1/4%) of milk solids-not-fat.

1. Cultured buttermilk is the product defined in the Code of Federal Regulations, Title 21, section 131.146.

2. Acidified buttermilk is the product defined in the Code of Federal Regulations, Title 21, section 131.144;

(J) Cultured milk is the product defined in the Code of Federal Regulations, Title 21, section 131.112.

1. Cultured lowfat milk is the product defined in the Code of Federal Regulations, Title 21, section 131.138;

(K) Acidified milk is the product defined in the Code of Federal Regulations, Title 21, section 131.111.

1. Acidified lowfat milk is the product defined in the Code of Federal Regulations, Title 21, section 131.136;

(L) Yogurt is the product defined in the Code of Federal Regulations, Title 21, section 131.200.

1. Lowfat yogurt is the product defined in the Code of Federal Regulations, Title 21, section 131.203.

2. Nonfat yogurt is the product defined in the Code of Federal Regulations, Title 21, section 131.206;

(M) Low-sodium milk or low-sodium lowfat milk or low-sodium skim milk is the product resulting from the treatment of milk, lowfat milk or skim milk (as defined in this rule) by a process of passing the milk, lowfat milk or skim milk through an ion exchange resin process or any other process which has been recognized by the Food and Drug Administration that effectively reduces the sodium content of the product to less than ten (10) milligrams in one hundred (100) milliliters.

1. Lactose-reduced milk or lactose reduced lowfat milk or lactose-reduced skim milk is the product resulting from the treatment of milk, lowfat milk or skim milk (as defined in this rule) by the addition of safe and suitable enzymes to convert sufficient amounts of the lactose to glucose and/or galactose so that the remaining lactose is less than thirty percent (30%) of the lactose in milk, lowfat milk or skim milk;

(N) Milk products include cream, light cream, light whipping cream, heavy cream, heavy whipping cream, whipped cream, whipped light cream, sour cream, acidified sour cream, cultured sour cream, half-and-half, sour half-and-half, acidified sour half-and-half, cultured half-and-half, reconstituted or recombined milk and milk products, concentrated milk, concentrated milk products, skim milk, lowfat milk, frozen milk concentrate, eggnog, buttermilk, cultured buttermilk, acidified buttermilk, cultured milk, cultured lowfat milk, yogurt, lowfat yogurt, nonfat yogurt, acidified milk, acidified lowfat milk, low-sodium milk, low-sodium low-fat milk, low-sodium skim milk, lactose-reduced milk, lactose-reduced lowfat milk, lactose-reduced skim milk and milk, lowfat milk or skim milk with added safe and suitable microbial organisms.

1. This definition is not intended to include such products such as sterilized milk and milk products hermetically sealed in a container and so processed, either before or after sealing, as to prevent microbial spoilage, evaporated milk, evaporated skim milk, condensed milk (sweetened or unsweetened), dietary products (except as defined in this rule), infant formula, butter, ice cream and other frozen desserts, dry milk products (except as defined in this rule) or cheese except when they are combined with other substances to produce any pasteurized milk or milk products defined herein.

(O) Cottage cheese is that product defined in the Code of Federal Regulations, Title 21, section 133.128. The grading of this product is optional.

1. Dry curd cottage cheese is that product defined in the Code of Federal Regulations, Title 21, section 133.129. The grading of this product is optional.

2. Lowfat cottage cheese is that product defined in the Code of Federal Regulations, Title 21, section 133.131. The grading of this product is optional;

(P) Grade A dry milk and whey products are products which have been produced for use in Grade A pasteurized milk products and which have been manufactured under the provisions of the Grade A Pasteurized Milk Ordinances with Administrative Procedures;

(Q) Adulterated milk and milk products shall be deemed to be adulterated if one (1) or more of the conditions described in section 402 of the Federal Food, Drug and Cosmetic Act exist;

(R) Misbranded milk and milk products are misbranded if one (1) or more of the conditions described in section 402 of the Federal Food, Drug and Cosmetic Act as amended exist;

(S) Homogenized is the term that means that milk or a milk product has been treated to insure breakup of the fat globules to an extent that after forty-eight (48) hours of quiescent storage at forty-five degrees Fahrenheit (45°F) (7°C), no visible cream separation occurs on the milk; and the fat percentage of the top one hundred (100) milliliters of milk in a quart or of proportionate volumes in containers of other sizes, does not differ by more than ten percent (10%) from the fat percentage of the remaining milk as determined after thorough mixing;

(T) The terms "pasteurization", "pasteurized" and similar terms shall mean the process of heating every particle of milk or milk product in properly designed and operated equipment, to one (1) of the temperatures given in the following table and held continuously at or above that temperature for at least the corresponding specified time:

Temperature	Time
*145°F (63°C.)	30 minutes
*161°F (72°C.)	15 seconds
191°F (89°C.)	1 second
194°F (90°C.)	0.5 second
201°F (94°C.)	0.1 second
205°F (96°C.)	0.05 second
212°F (100°C.)	0.01 second

*If the fat content of the milk product is ten percent (10%) or more, or if it contains added sweeteners, the specified temperature shall be increased by five degrees (5°F.) (3°C.). Provided that eggnog shall be heated to at least the following temperature and time specifications:

Temperature	Time
155°F (69°C)	30 minutes
175°F (80°C)	25 seconds
180°F (83°C)	15 seconds

Provided further, that nothing in this definition shall be construed as barring any other pasteurization process which has been recognized by the Food and Drug

Administration to be equally efficient and which is approved by the regulatory agency;

(U) The term “ultra-pasteurized”, when used to describe a dairy product, means that the product shall have been thermally processed at or above two hundred eighty degrees (280°F) (138°C) for at least two (2) seconds, either before or after packaging, so as to produce a product which has an extended shelf life under refrigerated conditions;

(V) Sanitization is the application to a clean surface of any effective method or substance for the destruction of pathogens, and of other organisms as far as is practicable. This treatment shall not adversely affect the equipment, the milk or milk product or health of consumers and shall be acceptable to the regulatory agency;

(W) A milk producer or dairyman is any person who operates a dairy farm and provides, sells or offers all of his/her milk for sale to a milk plant, receiving station or transfer station at intervals satisfactory to the regulatory agency (exclusive of personal family use);

(X) A milk hauler is any person who operates a bulk milk pick-up tanker, collects raw milk at a dairy farm and transports same to a milk plant, receiving or transfer station and collects and cares for milk samples in transportation;

(Y) A milk distributor is any person who offers for sale or sells any milk or milk products to another;

(Z) Regulatory agency shall mean the State Milk Board or its authorized representative. The term “regulatory agency” whenever it appears in these rules shall mean the appropriate agency having jurisdiction and control over the matters embraced within these rules;

(AA) A dairy farm is any place or premises where one (1) or more cows or goats are kept and from which all of the milk or milk products are produced, sold or offered for sale to a milk plant, transfer station or receiving station (exclusive of personal family use);

(BB) A milk plant is any place, premises or establishment where milk or milk products are collected, handled, processed, stored, pasteurized, bottled or prepared for distribution;

(CC) A transfer station is any place, premises or establishment where milk or milk products are transferred directly from one-milk tank truck to another;

(DD) A receiving station is any place, premises or establishment where raw milk is received, collected,

handled, stored or cooled and prepared for further transporting;

(EE) A bulk milk pick-up tanker is a vehicle including the truck, tank and those appurtenances necessary for its use, used by a milk hauler to transport bulk raw milk for pasteurization from a dairy farm to a transfer station, receiving station or milk plant;

(FF) A milk transport tank is a vehicle including the truck and tank used by a milk hauler to transport bulk shipments of milk from a transfer station, receiving station or milk plant to another transfer station, receiving station or milk plant;

(GG) An official laboratory is a biological, chemical or physical laboratory which is under the direct supervision of the state or a local regulatory agency;

(HH) An officially designated laboratory is a commercial laboratory authorized by the regulatory agency to do official work, or a milk industry laboratory officially designated by the regulatory agency for the examination of producer samples of Grade A raw milk for pasteurization and commingled milk tank truck samples of raw milk for antibiotic residues;

(II) Department means the Missouri Department of Agriculture;

(JJ) The State Milk Board is the board appointed by the governor as outlined in section 196.941, RSMo (1986). Sanitary control of fluid milk in Missouri is the responsibility of this board;

(KK) Milk board authorized representative shall mean the person(s) authorized by the board to perform local milk inspection activities as employees of the board or as employees of a political subdivision of the state under contractual agreement with the State Milk Board;

(LL) The word "person" shall include any individual, plant operator, receiving station operator, transfer station operator, milk producer, milk hauler, milk distributor, partnership, corporation, company, firm, trustee, association or institution; and

(MM) Where the term "and/or" is used, "and" shall apply where appropriate, otherwise or shall apply.

2 CSR 80-2.020 Sale of Adulterated, Misbranded Milk or Milk Products

PURPOSE: To provide for the control of adulterated and/or misbranded Grade A milk or milk products. This rule corresponds with Part II,

Section 2 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) No person shall produce, provide, sell, offer or expose for sale, or have in possession with intent to sell, within the state of Missouri, or its jurisdiction, any milk or milk product which is adulterated or misbranded. Provided that, in an emergency, the sale of pasteurized milk and milk products which have not been graded, or the grade of which is unknown, may be authorized by the regulatory agency, in which case those products shall be labeled “ungraded.”

(2) Any adulterated or misbranded milk or milk product may be impounded under proper authority by the regulatory agency and disposed of in accordance with applicable laws or regulations.

2 CSR 80-2.030 Permits

PURPOSE: To provide for the issuance of permits to persons involved in the production, transporting and processing of Grade A milk and milk products. This rule corresponds with Part II, Section 3 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) It shall be unlawful for any person who does not possess a permit from the regulatory agency of Missouri to bring into, send into or receive into Missouri or its jurisdiction, for sale, or to sell, or offer to sale or to have in storage any milk or milk products defined in these rules. Imported sources of milk or milk products shall be permitted jointly by the state Department of Agriculture, state Department of Health and the State Milk Board. An Export Certificate shall serve as the permit. Provided that grocery stores, restaurants, soda fountains and similar establishments where milk or milk products are served or sold at retail, but not processed, may be exempt from the requirements of this rule.

(2) Only a person who complies with the requirements of these rules shall be entitled to receive and retain a permit. Permits shall not be transferable with respect to persons, locations or both.

(3) The regulatory agency shall suspend the permit, whenever it has reason to believe that a public health hazard exists; or whenever the permit holder has violated any of the requirements of these rules or whenever the permit holder has interfered with the regulatory agency in the performance of its duties. Provided that the regulatory agency, in all cases except where the milk or milk product involved creates, or appears to create, an imminent hazard to the public health, or in any case of a willful refusal to permit authorized inspection, serve upon the holder a written notice of intent to suspend permit, which notice shall specify with particularity the violation(s) in question and afford the holder reasonable opportunity to correct the violation(s) as may be agreed to by the parties, or in the absence of agreement, fixed by the regulatory agency before making any order of suspension effective. Any permit suspension shall remain in effect until the violation has been corrected to the satisfaction of the regulatory agency. Prior to reinstatement when permit suspension has been due to a somatic cell violation, in addition to complying with the requirements contained elsewhere in these rules, the analysis of an individual producer sample meeting the somatic cell standards outlined in 2 CSR 80- 2.070 (Section 7 of the PMO) shall be made. The sample shall be analyzed in an official or officially designated laboratory.

(4) Upon written notification to the regulatory agency by any person whose permit has been suspended, or upon application within forty-eight (48) hours of any person who has been served with a notice of intention to suspend, and in the latter case before suspension, the regulatory agency, within seventy-two (72) hours, shall proceed to a hearing to ascertain facts of the violation or interference and upon evidence presented at the hearing shall affirm, modify or rescind the suspension or intention to suspend.

(5) Upon repeated violation(s), the regulatory agency may revoke the permit following reasonable notice to the permit holder and an opportunity for a hearing. This rule is not intended to preclude the institution of court action as provided in 2 CSR 80-2.050 (Section 5 of the PMO) and 2 CSR 80-2.060 (Section 6 of the PMO).

2 CSR 80-2.040 Labeling

PURPOSE: The purpose of this rule is to provide regulations for the proper labeling of Grade A milk or milk products. This rule corresponds with Part II, Section 4 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) All bottles, containers and packages enclosing milk or milk products defined in 2 CSR 80-2.010 (Section 1 of the PMO) of these rules shall be labeled in substantial compliance with the applicable requirements of the Federal Food, Drug and Cosmetic Act, the Fair Packaging and Labeling Act and regulations developed thereunder and in addition shall comply with the applicable requirements of this rule as follows:

(2) All bottles, containers and packages enclosing milk or milk products except milk tank trucks, storage tanks and cans of raw milk from individual dairy farms shall be conspicuously marked with—

- (A) The name of the product;
- (B) The words “Grade A”;
- (C) The identity of the plant where pasteurized;
- (D) The word “reconstituted” or “recombined” if the product is made by reconstitution or recombination; and
- (E) The volume or proportion of water to be added for reconstitution or recombining in the case of concentrated milk or milk products.

(3) All vehicles and milk tank trucks containing milk or milk products shall be legibly marked with the name of the milk plant or hauler in possession of the contents.

(4) Milk tank trucks transporting raw milk and milk products to a milk plant from sources of supply not under the routine supervision of the regulatory agency are required to be marked with the name and address of the milk plant or hauler and shall be sealed; in addition, for each of these shipments, a shipping statement shall be prepared containing at least the following information:

- (A) Shipper’s name, address and permit number;
- (B) Permit identification of hauler, if not employee of 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; and
- (K) Whether the contents are raw, pasteurized or in the case of cream, skim milk or lowfat milk, whether it has been heat-treated.

(5) One (1) copy of the shipping statement shall be retained by the consignor, one (1) by the common carrier and at least two (2) copies shall be delivered to the consignee with the shipment. The consignee shall forward at least one (1) copy to the regulatory agency in the receiving area. Upon request, the regulatory agency shall return to the official supervising agency the following information:

- (A) Date and time of arrival of product;
- (B) Temperature of product;
- (C) Bacterial count and butterfat test of product on individual shipment;
- (D) Adequacy of seals; and
- (E) Other pertinent information.

(6) Entries made on shipping statements by consignors or consignees shall be legible. When the interstate shipment is derived from more than one (1) point of origin, separate shipping statements for each of the sources involved shall accompany the shipment. Shipping statements shall be retained on file for a period of at least six (6) months.

2 CSR 80-2.050 Inspection Frequency and Procedure

PURPOSE: This rule is for the purpose of providing requirements concerning inspection frequency and procedures. This rule corresponds with Part II, Section 5 of the "Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration".

(1) Each dairy farm, milk plant, receiving station, transfer station and milk distributor whose milk or milk products are intended for consumption within the state

of Missouri or its jurisdiction and each milk hauler who collects samples of raw milk for pasteurization, for bacterial, chemical or temperature standards and hauls milk from a dairy farm to a milk plant, transfer station or receiving station and bulk milk pick-up tanker and its appurtenances shall be inspected by the regulatory agency prior to the issuance of a permit. Following the issuance of a permit, each bulk milk pickup tanker, milk hauler, dairy farm, milk distributor and transfer station shall be inspected at least once every six (6) months. Each milk plant and receiving station shall be inspected at least once every three (3) months. Should the violation of any requirement, set forth in 2 CSR 80-2.070 (Section 7 of the PMO), or in the case of a milk hauler 2 CSR 80-2.060 also (Section 6 of the PMO), be found to exist on an inspection, a second inspection shall be required after the time deemed necessary to remedy the violation, but not before three (3) days; this second inspection shall be used to determine compliance with the requirements of 2 CSR 80-2.070 (Section 7 of the PMO) or in the case of a milk hauler 2 CSR 80-2.060 also (Section 6 of the PMO). Any violation of the same requirement of 2 CSR 80-2.070 (Section 7 of the PMO), or in the case of a milk hauler 2 CSR 80-2.060 also (Section 6 of the PMO) on the second inspection shall call for permit suspension in accordance with 2 CSR 80-2.030 (Section 3 of the PMO), court action or both. Additionally flagrant violations on the part of a hauler such as fraudulent practices, intentional adulteration or any action adversely affecting the integrity of producer milk samples shall result in immediate permit suspension in accordance with 2 CSR 80-2.030 (Section 3 of the PMO), court action or both.

(2) One (1) copy of the inspection report shall be handed to the operator, or other responsible person, or be posted in a conspicuous place on an inside wall of the establishment. The inspection report shall not be defaced and shall be made available to the regulatory agency upon request. An identical copy of the inspection report shall be filed with the records of the regulatory agency.

(3) Every milk producer, hauler, distributor or plant operator shall, upon request of the regulatory agency, permit access of officially designated persons to all parts of the establishment or facilities to determine compliance with the provisions of these rules. Upon

request, a distributor or plant operator shall furnish the regulatory agency, for official use only, a true statement of the actual quantities of milk and milk products of each grade purchased and sold, and a list of all sources of the milk and milk products, records of inspections, tests and pasteurization time and temperature records.

(4) It shall be unlawful for any person who, in an official capacity, obtains any information, which is entitled to protection as a trade secret (including information as to quantity, quality, source or disposition of milk or milk products, or results of inspections or tests of milk or milk products), under the provisions of these rules, to use this information to his/her own advantage or to reveal it to any unauthorized person.

2 CSR 80-2.060 The Examination of Milk and Milk Products

PURPOSE: This rule specifies sampling frequency and required chemical and bacteriological tests to be conducted both on raw and pasteurized Grade A dairy products. This rule corresponds with Part II, Section 6 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the United States Public Health Service/Food and Drug Administration.”

(1) During any consecutive six (6) months, at least four (4) samples of raw milk for pasteurization, taken from each producer and delivered in accordance with 2 CSR 80-2.070 (Section 7 of the PMO) of these rules, shall be obtained by the hauler under the direction of the regulatory agency or shall be taken from each producer by the regulatory agency. During any consecutive six (6) months, at least four (4) samples of raw milk for pasteurization shall be taken, under the direction of the regulatory agency, from each milk plant after receipt of the milk by the plant and prior to pasteurization. In addition, during any consecutive six (6) months, at least four (4) samples of pasteurized milk and at least four (4) samples of each milk product defined in these rules shall be taken from every milk plant. Samples of milk and milk products shall be taken while in possession of the producer or distributor at any time

prior to final delivery. Samples of milk and milk products from dairy retail stores, food service establishments, grocery stores and other places where milk and milk products are sold shall be examined periodically as determined by the regulatory agency; and the results of the examination shall be used to determine compliance with 2 CSR 80-2.020, 2 CSR 80- 2.040 and 2 CSR 80-2.100. Proprietors of the establishments, upon request, shall furnish the regulatory agency with the names of all distributors from whom milk or milk products are obtained.

(2) Required bacterial counts, somatic cell counts and cooling temperature checks shall be performed on raw milk for pasteurization. In addition, antibiotic tests on each producer's milk or on commingled raw milk shall be conducted at least four (4) times during any consecutive six (6) months. When commingled milk is tested, all producers shall be represented in the sample. All individual sources of milk shall be tested when test results on the commingled milk are positive. Required bacterial counts, antibiotic tests, coliform determinations, phosphatase and cooling temperature checks shall be performed on pasteurized milk and milk products.

(3) Whenever two (2) of the last four (4) consecutive bacterial counts, somatic cell counts, coliform determinations or cooling temperatures, taken on separate days, exceed the limit of the standard for the milk, and/or milk products, the regulatory agency shall send a written notice to the person concerned. This notice shall be in effect so long as two (2) of the last four (4) consecutive samples exceed the limit of the standard. An additional sample shall be taken within twenty-one (21) days of the sending of the notice, but not before the lapse of three (3) days. Immediate suspension of the permit in accordance with 2 CSR 80-2.030, court action, or both, shall be instituted whenever the standard is violated by three (3) of the last five (5) bacterial counts, coliform determinations, cooling temperatures or somatic cell counts.

(4) Whenever a phosphatase test is positive, the cause shall be determined. When the cause is improper pasteurization, it shall be corrected and any milk or milk product involved shall not be offered for sale.

(5) Whenever antibiotic or pesticide residue test is positive, immediate permit suspension in accordance with 2 CSR 80-2.030 (Section 3 of the PMO), court action or both shall be instituted.

(6) Samples shall be analyzed at an official or appropriate officially designated laboratory. All sampling procedures and required laboratory examinations shall be in substantial compliance with the current edition of "Standard Methods for the Examination of Dairy Products of the American Public Health Association", and the current edition of "Official Methods of Analysis of the Association of Official Analytical Chemists." Such procedures, including the certification of sample collectors and examinations shall be evaluated in accordance with "Evaluation of Milk Laboratories, (1985) Recommendations of the U.S. Public Health Service/Food and Drug Administration." Examinations and tests to detect adulterants, including pesticides, shall be conducted as the regulatory agency requires. Assays of milk and milk products to which vitamin(s) A, and/or D have been added, shall be made at least annually in a laboratory acceptable to the regulatory agency.

2 CSR 80-2.070 Standards for Milk and Milk Products

PURPOSE: This rule provides standards which Grade A raw or pasteurized milk or milk products must meet with regard to cooling temperatures, bacterial limits, somatic cell counts, antibiotics, coliform limits, phosphatase determinations and sanitation requirements for dairy farms, milk haulers, transfer stations, receiving stations and milk plants. This rule corresponds with Part II, Section 7 of the "Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration."

(1) All Grade A raw milk for pasteurization and all Grade A pasteurized milk and milk products shall be produced, processed and pasteurized to conform with the following chemical, bacteriological and temperature standards and the sanitation requirements of this rule.

(2) No process or manipulation other than pasteurization, processing methods integral to pasteurization and appropriate refrigeration shall be applied to milk and milk products for the purpose of removing or deactivating microorganisms. Provided that in the bulk shipment of raw cream, skim milk or lowfat milk, the heating of the raw milk to temperatures no greater than one hundred twenty-five degrees Fahrenheit (125°F.) (52°C.) for separation purposes is permitted when the resulting bulk shipments of cream, skim milk and lowfat milk are labeled heat-treated.

TABLE 1 CHEMICAL, BACTERIOLOGICAL AND TEMPERATURE STANDARDS

Grade A raw milk for pasteurization	Temperature	Cooled to 45°F. (7°C.) or less within two hours after milking, provided that the blend temperature after the first and subsequent milkings does not exceed 50°F (10°C).
	Bacterial Limits	Individual producer milk not to exceed 100,000 per ml. prior to commingling with other producer milk. Not to exceed 300,000 per ml. as commingled milk prior to pasteurization.
	Antibiotics	Comply with Negative Test Result standard(s) required by the current Grade A Pasteurized Milk Ordinance.
	Somatic Cell Count	Individual producer milk: Not to exceed 750,000 per ml.
Grade A pasteurized milk and milk products	Temperature	Cooled to 45°F. (7°C.) or less and maintained thereat.

Bacterial Limits*	20,000 per ml
Coliform	Not to exceed 10 per ml.: Provided that, in the case of bulk milk transport tank shipments, shall not exceed 100 per ml.
Phosphatase	Less than 1 microgram per ml. by the Schrärer Rapid Method or equivalent.
Antibiotics	Comply with Negative Test Result standard(s) required by the current Grade A Pasteurized Milk Ordinance.

*Not applicable to cultured products.

(3) Ungraded Raw Milk for Pasteurization.

(A) Ungraded raw milk for pasteurization is raw milk which does not meet the requirements for Grade A raw milk for pasteurization.

(4) Ungraded Pasteurized Milk, Milk Products or both.

(A) Ungraded pasteurized milk, milk products, or both, are pasteurized milk, milk products, or both, which do not meet the requirements of Grade A pasteurized milk products.

(B) Only in an emergency, so declared by the regulatory agency, can raw or pasteurized fluid milk products which have not been graded or the grade of which is unknown, be sold, in which case these fluid milk or milk products shall be labeled Ungraded and these milk and milk products shall comply with antibiotic, phosphatase and pesticide residue tolerances.

(5) Grade A Pasteurized Milk Regulation Items.

(A) Sanitation Requirements for Grade A Raw Milk for Pasteurization.

1. Abnormal milk – based upon bacteriological, chemical or physical examination, cows which show evidence of the secretion of abnormal milk in one (1) or more quarters shall be milked last or with separate equipment and the milk shall be discarded. Cows treated with, or cows which have consumed chemical,

medicinal or radioactive agents which are capable of being secreted in the milk and which, in the judgment of the regulatory agency may be deleterious to human health, shall be milked last or with separate equipment and the milk disposed of as the regulatory agency may direct.

2. Milking barn, stable or parlor – Construction – On all dairy farms a milking barn, stable or parlor shall be provided in which the milking herd shall be housed during milking time operations. The areas used for milking purposes shall –

A. Have floors constructed of concrete or equally impervious material;

B. Have walls and ceilings which are smooth, painted or finished in an approved manner, in good repair, ceiling dust-tight;

C. Have separate stalls or pens for horses, calves and bulls;

D. Be provided with natural light, artificial light, or both, well distributed for day and/or night milking, or both;

E. Provide sufficient air space and air circulation to prevent condensation and excessive odors;

F. Not be overcrowded; and

G. Have dust-tight covered boxes or bins or separate storage facilities for ground, chopped or concentrated feed.

3. Milking barn, stable or parlor – Cleanliness – The interior shall be kept clean. Floors, walls, ceilings, windows, pipelines and equipment shall be free of filth, litter, or both, and shall be clean. Swine and fowl shall be kept out of the milking barn.

4. Cowyard – The cowyard shall be graded and drained and shall have no standing pools of water or accumulations of organic wastes. Provided that in loafing or cattlehousing areas, cow droppings and soiled bedding shall be removed or clean bedding added, at sufficiently frequent intervals to prevent the soiling of the cow's udder and flanks. Waste feed shall not be allowed to accumulate. Manure packs shall be properly drained and shall provide a reasonably firm footing. Swine shall be kept out of the cowyard.

5. Milkhouse or room – Construction and Facilities – Milkhouse or room construction and facilities shall comply with the following:

A. A milkhouse or room of sufficient size shall be provided, in which the cooling, handling and storing of

milk and the washing, sanitizing and storing of milk containers and utensils shall be conducted, except as provided for in paragraph (5)(A)12. of this rule;

B. The milkhouse shall be provided with a smooth floor constructed of concrete or equally impervious material graded to drain and maintained in good repair. Liquid waste shall be disposed of in a sanitary manner; all floor drains shall be accessible and shall be trapped if connected to a sanitary sewer system;

C. The walls and ceilings shall be constructed of smooth material, in good repair, well painted or finished in an equally suitable manner;

D. The milkhouse shall have adequate natural light, artificial light, or both, and be well ventilated;

E. The milkhouse shall be used for no other purpose than milkhouse operations; there shall be no direct opening into any barn, stable or into a room used for domestic purposes. Provided that a direct opening between the milkhouse and milking barn, stable or parlor is permitted when a tight-fitting self-closing solid door(s) hinged to be single or double acting is provided;

F. Water under pressure shall be piped into the milkhouse;

G. The milkhouse shall be equipped with a two (2)-compartment wash vat and adequate hot water heating facilities;

H. When a transportation tank is used for the cooling of milk, storage of milk, or both, on the dairy farm, the tank shall be provided with a suitable shelter for the receipt of milk. The shelter shall be adjacent to, but not a part of, the milkroom and shall comply with the requirements of the milkroom with respect to construction, light, drainage, insect and rodent control and general maintenance; and

I. Effective July 1, 1985 all bulk milk cooling tanks, holding tanks, or both, in use shall be equipped with interval timing devices.

(I) Construction Requirements – Interval timers shall be set and adjusted so that the milk will be agitated not less than five (5) minutes with a frequency of at least once every hour.

(II) Installation Requirements – The installation and operation of interval timing devices shall be the responsibility of the milk producer.

6. Milkhouse or Room – Cleanliness – The floors, walls, ceilings, windows, tables, shelves, cabinets,

wash vats, nonproduct contact surfaces of milk containers, utensils and equipment and other milkroom equipment shall be clean. Only articles directly related to milkroom activities shall be permitted in the milkroom. The milkroom shall be free of trash, animals and fowl.

7. Toilet – Every dairy farm shall be provided with one (1) or more toilets, conveniently located and properly constructed, operated and maintained in a sanitary manner. The waste shall be inaccessible to flies and shall not pollute the soil surface or contaminate any water supply.

8. Water Supply – Water for milkhouse and milking operations shall be from a supply properly located, protected and operated and shall be easily accessible, adequate and of a safe, sanitary quality.

9. Utensils and Equipment – Construction – All multi-use containers, equipment and utensils used in the handling, storage or transportation of milk shall be made of smooth, nonabsorbent, corrosion-resistant, nontoxic materials and shall be so constructed as to be easily cleaned. All containers, utensils and equipment shall be in good repair. All milk pails used for hand milking and stripping shall be seamless and of the hooded type. Multi-use woven material shall not be used for straining milk. All single-service articles shall have been manufactured, packaged, transported, stored and handled in a sanitary manner and shall comply with the applicable requirements of paragraph (7)(B)11. of this rule. Articles intended for single-service shall not be reused.

A. Farm holding/cooling tanks, welded sanitary piping and transportation tank shall comply with the applicable requirements of paragraphs (7)(B)10. and 11. of this rule.

10. Utensils and Equipment – Cleaning – The product-contact surfaces of all multi-use containers, equipment and utensils used in the handling, storage or transportation of milk shall be cleaned after each usage.

11. Utensils and Equipment – Sanitization – The product-contact surfaces of all multi-use containers, equipment and utensils used in the handling, storage and transportation of milk shall be sanitized before each usage.

12. Utensils and Equipment – Storage – All containers, utensils and equipment used in the handling, storage or transportation of milk, unless stored in sani-

tizing solutions, shall be stored to assure complete drainage and shall be protected from contamination prior to use. Provided that milk pipelines and pipeline milking equipment, such as milker claws, inflations, weigh jars, meters, milk hoses, milk receivers and milk pumps which are designed for mechanical cleaning, may be stored in the milking barn or parlor provided this equipment is designed, installed and operated to protect the product- and solution-contact surfaces from contamination at all times.

13. Utensils and Equipment – Handling – After sanitization, all containers, utensils and equipment shall be handled in a manner as to prevent contamination of any product-contact surface.

14. Milking – Flanks, Udders and Teats – Milking shall be done in the milking barn, stable or parlor. The flanks, udders, bellies and tails of all milking cows shall be free from visible dirt. All brushing shall be completed prior to milking. The udders and teats of all milking cows shall be cleaned and treated with a sanitizing solution just prior to the time of milking and shall be relatively dry before milking. Wet hand milking is prohibited.

15. Milking – Surcingles, Milk Stools and Antikickers – Surcingles, milk stools and antikickers shall be kept clean and stored above the floor.

16. Protection from Contamination – Milking and milkhouse operations, equipment and facilities shall be located and conducted to prevent any contamination of milk, equipment, containers and utensils. No milk shall be strained, poured, transferred or stored unless it is properly protected from contamination.

17. Personnel – Handwashing Facilities – Adequate handwashing facilities shall be provided, including a lavatory fixture with running water, soap or detergent and individual sanitary towels, in the milkhouse and in or convenient to the milking barn, stable, parlor or flush toilet.

18. Personnel – Cleanliness. – Hands shall be washed clean and dried with an individual sanitary towel immediately before milking, performing any milkhouse function and immediately after the interruption of any of these activities. Milkers and milk haulers shall wear clean outer garments while milking or handling milk, milk containers, utensils or equipment.

19. Cooling – Raw milk for pasteurization shall be cooled to forty-five degrees Fahrenheit (45°F) (7°C) or less within two (2) hours after milking, provided that the

blend temperature after the first milking and subsequent milkings does not exceed fifty degrees Fahrenheit (50°F) (10°C).

20. Vehicles. Vehicles used to transport milk from the dairy farm to the milk plant or receiving station shall be constructed and operated to protect their contents from sun, freezing and contamination. These vehicles shall be kept clean, inside and out; and no substance capable of contaminating milk shall be transported with milk.

21. Insect and rodent control. Effective measures shall be taken to prevent the contamination of milk, containers, equipment and utensils by insects and rodents and by chemicals used to control vermin. Milkrooms shall be free of insects and rodents. Surroundings shall be kept neat, clean and free of conditions which might harbor or be conducive to the breeding of insects and rodents.

(6) To secure and hold a valid permit, license, or both, a hauler shall meet the following requirements governing Grade A milk haulers, the collection of Grade A milk from farm bulk milk cooling tanks, storage tanks, or both, and the collection and care of Grade A milk samples:

(A) General Requirements.

1. All bulk tank trucks, associated and auxiliary equipment, shall be maintained in a clean and sanitary condition and shall be in good repair.

2. Whenever a bulk tank truck has been cleaned and sanitized, as required by the regulatory agency, it shall bear a tag showing the date, time, place and signature of the employee or contract operator doing the work, unless the truck delivers to only one (1) receiving unit where responsibility for cleaning and sanitizing can be definitely established without tagging. The tag is to be removed at the first stop on route and kept on file for the regulatory agency.

3. Milk shall never be collected at a producer farm during the milking operation. Partial collections of milk from a bulk cooling tank, storage tank, or both, are prohibited without special permission from the regulatory agency.

4. Milk which has not been cooled to forty-five degrees Fahrenheit (45°F) (7°C) within two (2) hours after milking or on which the blend temperature after the first milking and subsequent milkings has exceeded-

ed fifty degrees Fahrenheit (50°F) (10°C) shall not be collected. Except that where recording thermometer charts are available, milk may be collected provided it complies with standards adopted by the regulatory agency.

5. Abnormal milk shall not be collected.

6. The tank truck pump and hose shall be handled in a sanitary manner and shall be protected during the collection procedure.

7. An accurate complete record of each producer's milk pick-up shall be kept. This shall include producer number and name; milk measurement, weight or both, date and time of collection; temperature of the milk; remarks on condition or quality and the hauler's signature or initials.

8. Hauling to toxic materials in bulk milk tank trucks is prohibited. Permission to haul nontoxic material other than Grade A milk, milk products, or both, must be obtained from the regulatory agency on an individual basis;

(B) Permits and Licenses.

1. All milk haulers must possess a license from the state Department of Agriculture and a permit from the regulatory agency. The permit, license, or both, are subject to suspension or revocation whenever any of the laws or rules are violated on the second consecutive inspection. Flagrant violations on the part of the hauler, such as fraudulent practices, intentional adulteration or any actions adversely affecting the integrity of producer milk samples, shall result in immediate permit suspension in accordance with 2 CSR 80-2.030 (Section 3 of the PMO), and/or court action.

2. A temporary permit may be given in the field by the regulatory agency to an applicant who satisfactorily passes a written examination and who possesses a temporary license issued through the dairy program of the Missouri Department of Agriculture. The temporary permit may be revoked for cause at any time. Regular status of a temporary permit, license, or both, is acquired only after an applicant satisfactorily passes a hauler training course provided by a company or organization if the training course has been approved by the dairy program of the Missouri Department of Agriculture and the regulatory agency.

3. An approved hauler training course should include the following:

- A. Basic milk microbiology;
- B. Milk quality tests and what they mean;
- C. Evaluation and detection of flavors and odors;
- D. Sampling and bacteriological, chemical and physical analysis;
- E. Sampling, why and how to handle samples;
- F. Cleaning and sanitizing of dairy equipment;
- G. Milk and its composition;
- H. The how and why of tank calibration;
- I. State and local laws and rules governing bulk milk; and

J. Procedures for the collection of milk from farm cooling or storage tanks, or both;

(C) Requirements Pertaining to the Operator.

1. The operator must maintain a neat and clean appearance and must have clean habits.

2. The operator must be able to differentiate between normal and abnormal milk.

3. The operator must not use tobacco in the milk-room.

4. The operator must carry an approved thermometer for checking milk temperature.

5. The operator must carry a suitable container bearing a bactericidal solution and appropriate brushes to give supplemental bactericidal treatment for bulk tank valve, tank truck hose opening and other equipment as the need is indicated;

(D) Hauler Procedure at the Farm.

1. Examine the milk for off odor and any other abnormalities which would class the milk as unmarketable. Wash hands thoroughly and dry with clean single-service towel immediately prior to measuring, sampling the milk or both.

2. Measure the milk before agitation. If the agitator is running upon arrival, the measurement can be taken only after the surface of the milk has been undisturbed for at least two (2) minutes. An accurate cold stick reading shall be used for milk measurement.

3. If the agitator is running upon arrival, run it at least five (5) minutes before sampling and recording temperature. If the agitator is not running, it must be started and run for at least five (5) minutes before sampling.

4. Identify sample container and collect sample.

5. Sanitize the hauler's thermometer when used to check accuracy of tank thermometer or before use when tank thermometer is inoperable.

6. After pumping milk into tank truck, disconnect and cap hose and replace hose in truck. Be sure port-hole cover is closed. Rinse tank and porthole thoroughly with tempered water.

7. When a route collection has started, complete it without any unnecessary delay;

(E) Procedures and Practices Concerning Sampling – A sample which will qualify for bacteriological analysis (universal sampling) shall be properly collected at each stop on the route. The sample shall be handled properly and subsequently delivered to the proper destination. While on the pick-up route, the hauler shall have an adequate supply of sample containers available. These containers shall be properly stored and handled. An approved sampling dipper or single-service sampling tubes shall be provided and must be maintained and handled to avoid possible contamination of the sample. The following procedures shall be carried out when collecting any sample:

1. Identify the sample container with the producer number, the date, time of day and temperature;

2. Bring sample container, dipper and dipper container or single-service sampling tubes into the milk-room. Dipper container must contain chlorine solution of one hundred to two hundred parts per million (100—200 ppm) or other approved bactericide at all times while on the route. Dipper must be kept clean;

3. Open sample container carefully and avoid contamination of the milk contact surfaces;

4. Immerse the sample dipper at least three (3) times in the milk, completely emptying each time. This will eliminate any remaining sanitizing solution in the dipper;

5. Collect representative sample or samples from the farm tank;

6. Do not hold sample container over the milk in the tank;

7. Rinse the sample dipper free of milk and place in its carrying container; and

8. Place sample or samples in cooling medium immediately after collection; and

(F) Specifications Which Are Related to Sampling.

1. All sample containers and single-service sampling tubes used for samples to determine bacteria counts shall be sterile. Samples shall be cooled to and held between thirty-two degrees Fahrenheit (32°F) (0°C) and forty degrees Fahrenheit (40°F) (4°C) during

transit to the laboratory. Multi-use sampling dippers shall be cleaned and sanitized.

2. Sample containers shall have space to properly identify sample.

3. Means shall be provided to properly protect sample in sample case.

4. Adequate racks also shall be provided when plastic sample bags are used. Other methods may be used as approved by the regulatory agency.

5. Adequate insulation of sample container box or ice chest shall be provided to keep samples from freezing during cold weather.

6. An extra sample of milk shall be collected and properly identified as a temperature sample at the first stop on each route and placed in the cooling medium as a temperature check.

7. Samples for butterfat and bacterial counts shall not be taken from tanks which contain frozen or churned milk.

(7) Sanitation Requirements for Grade A Pasteurized Milk and Milk Products.

(A) A receiving station shall comply with paragraphs (7)(B)1. – 15., 17., 20. and 22., except that the partitioning requirement of paragraph (7)(B)5. shall not apply.

(B) A transfer station shall comply with paragraphs (7)(B)1., 4., 6. – 12., 14., 15., 20. and 22.; and as climatic and operating conditions require, the applicable provisions of paragraphs (7)(B)2. and 3., provided that in every case, overhead protection shall be provided. Facilities for the cleaning and sanitizing of bulk milk pick-up tanker and milk transport tanks shall comply with paragraphs (7)(B)1., 4., 6. – 15., 20. and 22.; and as climatic and operating conditions require, the applicable provisions of paragraphs (7)(B)2. and 3., provided that in every case, overhead protection shall be provided.

1. Floors – Construction – The floors of all rooms in which milk or milk products are processed, handled or stored, or in which milk containers, equipment and utensils are washed shall be constructed of concrete or other equally impervious and easily cleaned material; and shall be smooth, properly sloped, provided with trapped drains and kept in good repair. Provided that cold-storage rooms used for storing milk and milk products need not be provided with floor drains when

the floors are sloped to drain to one (1) or more exits. Provided further that storage rooms for storing dry ingredients, packaging materials, or both, need not be provided with drains and the floors may be constructed of tightly joined wood.

2. Walls and Ceilings – Construction – Walls and ceilings of rooms in which milk or milk products are handled, processed or stored, or in which milk containers, utensils and equipment are washed, shall be in good repair with a smooth, washable, light-colored surface.

3. Doors and Windows – Effective means shall be provided to prevent the access of flies and rodents. All openings to the outside shall have solid doors or glazed windows which shall be closed during dusty weather.

4. Lighting and Ventilation – All rooms in which milk or milk products are handled, processed or stored, in which milk containers, equipment and utensils are washed, or both, handled and washed, shall be well lighted and well ventilated.

5. Separate Rooms – There shall be separate rooms for the pasteurizing, processing, cooling and packaging of milk and milk products; the cleaning of milk cans, bottles and cases; the cleaning and sanitizing facilities for milk tank trucks in plants receiving milk in those tanks; and receiving cans of milk and milk products in plants receiving those cans. Rooms in which milk or milk products are handled, processed or stored, or in which milk containers, utensils and equipment are washed or stored, shall not open directly into any stable or any room for domestic purposes. All rooms shall be of sufficient size for their intended purposes.

6. Toilet – Sewage Disposal Facilities – Every milk plant shall be provided with toilet facilities conforming with the regulations of the state of Missouri. Toilet rooms shall not open directly into any room in which milk, milk products, or both, are processed. Toilet rooms shall be completely enclosed and shall have tight-fitting, self-closing doors. Dressing rooms, toilet rooms and fixtures shall be kept in a clean condition, in good repair and shall be well ventilated and well lighted. Sewage and other liquid wastes shall be disposed of in a sanitary manner.

7. Water Supply – Water for milk plant purposes shall be from a supply properly located, protected and

operated and shall be easily accessible, adequate and of a safe, sanitary quality.

8. Handwashing Facilities – Convenient handwashing facilities shall be provided, including hot and cold or warm running water, soap and individual sanitary towels or other approved hand drying devices. Handwashing facilities shall be kept in a clean condition and in good repair.

9. Milk Plant Cleanliness – All rooms in which milk and milk products are handled, processed or stored, and in which containers, utensils or equipment are washed or stored, shall be kept clean, neat and free of evidence of insects and rodents. Only equipment directly related to processing operations or to handling of containers, utensils and equipment shall be permitted in the pasteurizing, processing, cooling, packaging and bulk milk storage rooms.

10. Sanitary Piping – All sanitary piping, fittings and connections which are exposed to milk or milk products, or from which liquids may drip, drain or be drawn into milk or milk products, shall consist of smooth, impervious, corrosion-resistant, nontoxic, easily cleanable material. All piping shall be in good repair. Pasteurized milk and milk products shall be conducted from one piece of equipment to another only through sanitary piping. Provided that cottage cheese, cheese dressings or cheese ingredients may be transported by other methods which protect the product from contamination.

11. Construction and Repair of Containers and Equipment – All multi-use containers and equipment with which milk or milk products come into contact shall be of smooth, impervious, corrosion-resistant, nontoxic material, shall be constructed for ease of cleaning and shall be kept in good repair. All single service containers, closures, gaskets and other articles with which milk or milk products come in contact shall be nontoxic and shall have been manufactured, packaged, transported and handled in a sanitary manner. Articles intended for single-service use shall not be reused.

12. Cleaning and Sanitizing of Containers and Equipment – The product-contact surfaces of all multi-use containers, utensils and equipment used in the transportation, processing, handling and storage of milk or milk products shall be effectively cleaned and shall be sanitized before each use.

13. Storage of cleaned containers and equipment. After cleaning, all multi-use milk or milk product containers, utensils and equipment shall be transported and stored to assure complete drainage and shall be protected from contamination before use.

14. Storage of Single-service Containers, Utensils and Materials – Single-service caps, cap stock, parchment paper, containers, gaskets and other single-service articles for use in contact with milk and milk products shall be purchased and stored in sanitary tubes, wrappings or cartons, shall be kept in a clean, dry place until used and shall be handled in a sanitary manner.

15. Protection from Contamination – Milk plant operations, equipment and facilities shall be located and conducted to prevent any contamination of milk or milk products, ingredients, equipment, containers and utensils. All milk or milk products or ingredients which have spilled, overflowed or leaked shall be discarded. The processing or handling of products other than fluid milk and milk products in the pasteurization plant shall be performed to preclude the contamination of milk and milk products. The storage, handling and use of poisonous or toxic materials shall be performed to preclude the contamination of milk and milk products, the ingredients of milk and milk products or the product-contact surfaces of all equipment, containers or utensils.

16. Pasteurization – Pasteurization shall be performed as in 2 CSR 80-2.010(1)(T).

17. Cooling of Milk – All raw milk and milk products shall be maintained at forty-five degrees Fahrenheit (45°F) (7°C) or less until processed. All pasteurized milk and milk products, except those to be cultured, shall be cooled immediately prior to filling or packaging in approved equipment to a temperature of forty-five degrees Fahrenheit (45°F) (7°C) or less. All pasteurized milk and milk products shall be stored at a temperature of forty-five degrees Fahrenheit (45°F) (7°C) or less. On delivery vehicles, the temperature of milk and milk products shall not exceed fifty degrees Fahrenheit (50°F) (10°C). Every room or tank in which milk or milk products are stored shall be equipped with an accurate thermometer.

18. Bottling and Packaging – Bottling and packaging of milk and milk products shall be done at the place of pasteurization in approved mechanical equipment. Provided that cottage cheese may be transported in

sealed containers in a protected, sanitary manner from one (1) plant to another for creaming, packaging or both.

19. Capping – Capping or closing of milk and milk product containers shall be done in a sanitary manner by approved mechanical capping, closing equipment or both. The cap or closure shall be designed and applied in a manner that the pouring lip is protected to at least its largest diameter and with respect to fluid product containers, removal cannot be made without detection.

20. Personnel – Cleanliness – Hands shall be thoroughly washed before commencing plant functions and as often as may be required to remove soil and contamination. No employee shall resume work after visiting the toilet room without thoroughly washing his/her hands. All persons shall wear clean outer garments while engaged in the processing, pasteurization, handling, storage or transportation of milk, milk products, containers, equipment and utensils. All persons while engaged in the processing of milk or milk products shall wear adequate hair coverings and shall not use tobacco.

21. Vehicles – All vehicles used for transportation of pasteurized milk and milk products shall be constructed and operated so that the milk and milk products are maintained at forty-five degrees Fahrenheit (45°F) (7°C) or less, and are protected from sun, freezing and contamination.

22. Surroundings – Milk plant surroundings shall be kept neat, clean and free from conditions which might attract or harbor flies, other insects and rodents or which otherwise constitutes a nuisance.

2 CSR 80-2.080 Animal Health

PURPOSE: This rule provides requirements regarding animal health for Grade A dairy farms. This rule corresponds with Part II, Section 8 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/ Food and Drug Administration.”

(1) All milk for pasteurization shall be from herds which are located in a modified accredited tuberculosis area as determined by the United States Department of

Agriculture. Provided that herds located in an area which fails to maintain this accredited status shall have been accredited by the department as tuberculosis-free or shall have passed an annual tuberculosis test.

(2) All milk for pasteurization shall be from herds under a brucellosis eradication program which meets one (1) of the following conditions:

(A) Located in a certified brucellosis-free area as defined by the United States Department of Agriculture and enrolled in the testing program for those areas;

(B) Located in a modified certified brucellosis area as defined by the United States Department of Agriculture and enrolled in the testing program for those areas;

(C) Meet U.S. Department of Agriculture requirements for an individually certified herd;

(D) Participating in a milk-ring testing program which is conducted on a continuing basis at intervals of not less than every three (3) months or more than every six (6) months, with individual blood tests on all animals in herds showing suspicious reactions to the milk-ring test; or

(E) Have an individual blood agglutination test annually with an allowable maximum grace period not exceeding two (2) months.

(3) For diseases other than brucellosis and tuberculosis, the regulatory agency shall require physical, chemical or bacteriological tests as it deems necessary. The diagnosis of other diseases in dairy cattle shall be based upon the findings of a licensed veterinarian or a veterinarian in the employ of an official agency. Any diseased animal disclosed by these test(s) shall be disposed of as the regulatory agency directs.

2 CSR 80-2.091 Milk and Milk Products Which May Be Sold

PURPOSE: This rule specifies milk and milk products which may be sold. This rule corresponds with Part II, Section 9 of the "Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the United States Public Health Services/Food and Drug Administration."

(1) From and after the date on which this rule is adopted, except as provided by law (section 196.935,

RSMo), only Grade A pasteurized milk and milk products shall be sold to the final consumer, or to restaurants, soda fountains, grocery stores or similar establishments. Provided that in an emergency, the sale of pasteurized milk and milk products which have not been graded or the grade of which is unknown, may be authorized by the regulatory agency; in which case, the milk and milk products shall be labeled “ungraded.”

2 CSR 80-2.101 Transferring; Delivery Containers; Cooling

PURPOSE: This rule provides standards relating to transferring; delivery containers; and cooling of milk and/or milk products. This rule corresponds with Part II, Section 10 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) Except as permitted in this rule, no milk producer, milk hauler or distributor shall transfer milk or milk products from one container or milk tank truck to another on the street, in any vehicle, store or in any place except a milk plant, receiving station, transfer station or milkhouse especially used for that purpose. The dipping or lading of milk or fluid milk products is prohibited.

(2) It shall be unlawful to sell or serve any milk or fluid milk product except in the individual, original container received from the distributor or from an approved bulk dispenser. Provided that this requirement shall not apply to milk for mixed drinks requiring less than one-half (1/2) pint of milk, or to cream, whipped cream or half-and-half which is consumed on the premises and which may be served from the original container of not more than one-half (1/2) gallon capacity, or from a bulk dispenser approved for that service by the regulatory agency.

(3) It shall be unlawful to sell or serve any pasteurized milk or milk products which have not been maintained at the temperature set forth in 2 CSR 80-2.070. If containers of pasteurized milk or milk products are stored in ice, the storage container shall be properly drained.

2 CSR 80-2.110 Milk and Milk Products from Points Beyond the Limits of Routine Inspection

PURPOSE: This rule provides for requirements for milk and milk products from points beyond the limits of routine inspection. This rule corresponds with Part II, Section 11 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) Milk and milk products from points beyond the limits of routine inspection of the State Milk Board of Missouri or its jurisdiction may be sold in the Missouri or its jurisdiction provided they are produced, pasteurized, or both, under rules which are substantially equivalent to the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration” and have been awarded an acceptable milk sanitation compliance and enforcement rating made by a state milk sanitation rating officer certified by the Food and Drug Administration.

2 CSR 80-2.121 Future Dairy Farms and Milk Plants

PURPOSE: This rule provides requirements for construction or reconstruction of future dairy farms and milk plants. This rule corresponds with Part II, Section 12 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) Properly prepared plans shall be submitted to the regulatory agency for written approval before work is begun on all milkhouses, milking barns, stables and parlors, transfer stations, receiving stations and milk plants regulated under these rules which are hereafter constructed, reconstructed or extensively altered.

2 CSR 80-2.130 Personnel Health

PURPOSE: This rule establishes requirements relating to personnel health. This rule corresponds with Part II, Section 13 of the “Grade A

Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) No person affected with any disease in a communicable form, or while a carrier of that disease, shall work at any dairy farm or milk plant in any capacity which brings him/her into contact with the production, handling, storage or transportation of milk, milk products, containers, equipment and utensils; and no dairy farm or milk plant operator shall employ in any capacity any person or any person suspected of having any disease in a communicable form or of being a carrier of disease. Any producer or distributor of milk or milk products, upon whose dairy farm or in whose milk plant any communicable disease occurs, or who suspects that any employee has contracted any disease in a communicable form, or has become a carrier of the disease, shall notify the regulatory agency immediately.

2 CSR 80-2.141 Procedure When Infection is Suspected

PURPOSE: This rule provides the procedure to follow when infection is suspected. This rule corresponds with Part II, Section 14 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) When reasonable cause exists to suspect the possibility of transmission of infection from any person concerned with the handling of milk, milk products, or both, the regulatory agency is authorized to require any of the following measures:

(A) The immediate exclusion of that person from milk handling;

(B) The immediate exclusion of the milk supply concerned from distribution and use; and

(C) Adequate medical and bacteriological examination of the person, his/her associates and of his/her and their body discharges.

2 CSR 80-2.151 Enforcement

PURPOSE: This rule provides for regulatory enforcement methods. This rule corresponds with Part II, Section 15 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) These rules shall be enforced by the regulatory agency in accordance with the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration” a certified copy of which shall be on file at the secretary of state’s office. Where the mandatory compliance with provisions of the appendices is specified, provisions shall be deemed a requirement of these rules.

2 CSR 80-2.161 Penalty

PURPOSE: This rule provides for the penalty for violation of any of the provisions of these rules. This rule corresponds with Part II, Section 16 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) Any person(s) who shall violate any of the provisions of these rules shall be guilty of a misdemeanor and, upon conviction shall be punished by a fine of not more than that established by the statutes of Missouri, and/or such person(s) may be enjoined from continuing the violations, or both. Each day upon which the violations occur shall constitute a separate violation.

2 CSR 80-2.170 Separability Clause

PURPOSE: This rule provides a separability clause. This rule corresponds with Part II, Section 17 of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration.”

(1) Should any section, paragraph, sentence, clause or phrase of these rules be declared unconstitutional or invalid for any reason, the remainder of these rules shall not be affected.

2 CSR 80-2.180 Adoption of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/ Food and Drug Administration” by Reference

PURPOSE: This rule provides for the adoption of the “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the United States Public Health Service/Food and Drug Administration” which is the recommended ordinance for adoption by state and local governments for the sanitary control of Grade A milk and milk products.

Editor’s Note: The secretary of state has determined that the publication of this rule in its entirety would be unduly cumbersome or expensive. The entire text of the rule has been filed with the secretary of state and is summarized here by the agency adopting it. The entire text of the rule may be found at the headquarters of the agency and is available to any interested person at a cost not more than the actual cost of reproduction.

(1) The “Grade A Pasteurized Milk Ordinance with Administrative Procedures – (1993) Recommendations of the U.S. Public Health Service/Food and Drug Administration” establishes minimum standards which must be complied with for satisfactorily producing and for processing Grade A raw milk for pasteurization and Grade A pasteurized milk and milk products in Missouri. The document further contains administrative procedures which provide information as to satisfactory compliance with the required items of sanitation.