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**IDAPA 02
TITLE 04
Chapter 13**

**02.04.13 - RULES OF THE DEPARTMENT OF AGRICULTURE
GOVERNING RETAIL RAW MILK**

000. LEGAL AUTHORITY.

This chapter is adopted under the legal authority of Title 37, Chapters 3, 4, 7, and 8, Idaho Code. (4-8-94)

001. TITLE AND SCOPE.

The title of this chapter is "Rules of the Department of Agriculture Governing Retail Raw Milk". This chapter has the following scope: these rules shall govern the production, processing and sale of retail raw milk. The official citation of this chapter is IDAPA 02.04.13.000 et. seq. For example, this section's citation is IDAPA 02.04.13.001. (4-8-94)

002. WRITTEN INTERPRETATIONS.

There are no written interpretations of these rules. (4-8-94)

003. ADMINISTRATIVE APPEAL.

There is no provision for administrative appeals before the Department of Agriculture under this chapter. (4-8-94)

004. DEFINITIONS.

The following definitions shall apply in the interpretation and the enforcement of this chapter: (4-8-94)

01. Cream. The liquid milk product high in fat separated from milk. Cream contains not less than eighteen percent (18%) milkfat. (4-8-94)

02. Dairy Farm. Any place or premises where one (1) or more cows or goats are kept, and from which a part or all of the raw milk or raw milk products are distributed, sold, or offered for sale. (4-8-94)

03. Department. The Department of Agriculture of the state of Idaho. (4-8-94)

04. Director. The Director of the Department of Agriculture of the state of Idaho or his designee. (4-8-94)

05. Goat Milk. 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. (4-8-94)

06. Half-And-Half. The food consisting of a mixture of milk and cream which contains not less than ten and one-half percent (10.5%) but less than eighteen percent (18%) milkfat. (4-8-94)

07. Heavy Cream Or Heavy Whipping Cream. Cream which contains not less than thirty-six percent (36%) milkfat. (4-8-94)

08. Light Cream. Cream which contains not less than eighteen percent (18%) but less than thirty percent (30%) milkfat. (4-8-94)

09. Light Whipping Cream. Cream which contains not less than thirty percent (30%) but less than thirty-six percent (36%) milkfat. (4-8-94)

10. Lowfat Milk. Milk from which sufficient milkfat has been removed to produce a food having, within limits of good manufacturing practice, one of the following milkfat contents: one-half (.5), one (1), one and one-half (1.5), or two percent (2%), and contains not less than eight and one-fourth percent (8.25%) milk solids not fat. (4-8-94)

11. Milk Plant. Any place, premises, or establishment where milk or milk products are collected, handled, stored, bottled, or prepared for distribution. (4-8-94)

12. Official Laboratory. A biological, chemical, or physical laboratory which is under the direct

supervision of the State or a local regulatory agency. (4-8-94)

13. Person. An individual, plant operator, partnership, corporation, company, firm, trustee, association or institution. (4-8-94)

14. Regulatory Agency. The regulatory agency means the Idaho Department of Agriculture. Inspection and enforcement of these rules is the responsibility of the Idaho Department of Agriculture. (4-8-94)

15. Retail Raw Milk. The lacteal secretion, practically free from colostrum, obtained by the complete milking of one (1) or more health cows or goats, which has not been subjected to any pasteurization process. Retail raw milk shall contain not less than eight and one-fourth percent (8.25%) milk solids, not fat, and not less than three and one-fourth percent (3.25%) milkfat. Retail raw milk may have been adjusted by separating part of the milkfat therefrom. (4-8-94)

16. Retail Raw Milk Products. Retail raw milk products include cream, light cream, light whipping cream, heavy cream, heavy whipping cream, half-and-half, skim milk and lowfat milk which have not been subjected to any pasteurization process. (4-8-94)

17. Sanitization. The application of any effective method or substance to a clean surface for the destruction of pathogens, and of other organisms as far as is practicable. Such treatment shall not adversely affect the equipment, the retail raw milk or retail raw milk product or the health of consumers, and shall be acceptable to the regulatory agency. (4-8-94)

18. Skim Milk. Milk from which sufficient milkfat has been removed to reduce its milkfat content to less than one-half percent (.5%), and shall contain not less than eight and one-fourth percent (8.25%) milk solids not fat. (4-8-94)

19. Sterilized. When applied to piping, equipment and containers used for milk and milk products means the condition achieved by application of heat, chemical sterilant or other appropriate treatment that renders the piping, equipment and containers free of viable microorganisms. (4-8-94)

20. Denatured. To change the usual or normal nature of a material or substance by either chemical or physical means. (4-8-94)

21. Adulterated. The addition or inclusion of unclean, unwholesome, inferior, impure or foreign material into a food product; the production and sale of raw milk from a facility not possessing a valid permit from the regulatory agency. (4-8-94)

005. ADULTERATED OR MISBRANDED RAW MILK OR RAW MILK PRODUCTS.

01. Requirements. No person shall, within the State or its jurisdiction, produce, provide, sell, offer, or expose for sale, or have in possession with intent to sell any raw milk or raw milk product which is adulterated or misbranded. Any adulterated or misbranded milk or milk product may be impounded by the regulatory agency and disposed of in accordance with applicable laws or regulations. Adulterated or misbranded raw milk shall be denatured to preclude its use as human food and clearly labeled "Not for human consumption". (4-8-94)

02. Administrative Procedures. This Section of these rules shall be used in impounding the products of, or preferring charges against, persons who adulterate or misbrand raw milk or raw milk products. (4-8-94)

006. PERMITS.

01. Requirements. It shall be unlawful for any person who does not possess a permit from the regulatory agency of the State to produce within, process within, bring into, send into, or receive into the State or its jurisdiction, for sale, or to sell, or offer for sale therein, or to have in storage any raw milk or raw milk products defined in these rules; provided, that grocery stores and similar establishments where milk or milk products are sold at retail, but not processed, may be exempt from the requirements of this Section. (4-8-94)

a. Only a person who complies with the requirements of these rules shall be entitled to receive and retain such a permit. Permits shall not be transferable with respect to persons or locations. (4-8-94)

b. The regulatory agency shall suspend a 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 shall, in all cases except where the retail raw milk or retail raw 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 such reasonable opportunity to correct such 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. A suspension of the permit shall remain in effect until the violation has been corrected to the satisfaction of the regulatory agency. (4-8-94)

c. Upon notification acceptable to the regulatory agency by any person whose permit has been suspended, or any person who has been served with a notice of intention to suspend, the regulatory agency shall proceed to a hearing to ascertain the facts of such violation or interference and upon evidence presented at such hearing shall affirm, modify, or rescind the suspension or intention to suspend. (4-8-94)

d. Upon repeated violations, the regulatory agency may revoke a permit following reasonable notice to the permit holder and an opportunity for a hearing. This section is not intended to preclude the institution of court action. (4-8-94)

02. Administrative Procedures. (4-8-94)

a. Issuance of Permits. Every retail raw milk producer shall hold a valid permit. Grocery stores and similar establishments where raw milk and raw milk products are sold at retail but not processed, may be exempt from the requirements of this section. (4-8-94)

b. Suspension of Permit. When any requirement of these rules is violated, the permit holder is subject to the suspension of his permit. The regulatory agency may forego suspension of the permit, provided the product or products in violation are not sold or offered for sale or distributed for human consumption. (4-8-94)

c. Reinstatement of Permits. Any retail raw milk producer whose permit has been suspended may make written application for the reinstatement of his permit. When the permit suspension has been due to a violation of any of the bacterial, coliform, or cooling-temperature standards, the regulatory agency within one (1) week after the receipt of notification for reinstatement of permit, shall issue a temporary permit after determining by sampling that the conditions responsible for the violation have been corrected. When a permit suspension has been due to a violation of the somatic cell count standard, the regulatory agency may issue a temporary permit whenever a resampling of the herd milk supply indicates the milk supply to be within acceptable limits. The regulatory agency shall reinstate the permit upon compliance with the appropriate standard. Whenever the permit suspension has been due to a violation of a requirement other than bacteriological, coliform, somatic cell count or cooling-temperature standards, the notification shall indicate that the violation has been corrected. Within one (1) week of the receipt of such notification, the regulatory agency shall make an inspection of the applicant's establishment, and as many additional inspections thereafter as are deemed necessary, to determine that the applicant's establishment is complying with the requirements. When the findings justify, the permit shall be reinstated. (4-8-94)

007. LABELING.

01. Requirements. All bottles, containers, and packages enclosing raw milk or raw milk products defined in Section 002 shall be labeled in accordance with the applicable requirements of this section as follows: (4-8-94)

a. All bottles, containers, and packages enclosing raw milk or raw milk products shall be conspicuously marked with; The word "Raw"; the quantity of contents; the identity of the plant where packaged; the word "goat" shall precede the name of the retail raw milk or retail raw milk product when the product is or is made from goat milk; no grade designation. (4-8-94)

b. All vehicles and milk tank trucks containing retail raw milk or retail raw milk products shall be legibly marked with the name and address of the milk plant or hauler in possession of the contents. (4-8-94)

c. In the case of retail raw lowfat or retail raw skim milk the required nutritional labeling as required by the FDA is provided on the label. (4-8-94)

d. Labeling for retail raw milk and retail raw milk products may be placed on the cap. (4-8-94)

02. Misleading Labels. The regulatory agency shall not permit the use of any misleading marks, words, or endorsements upon the label. They may permit the use of registered trade designs or similar terms on the bottle cap or label when, in their opinion, they are not misleading and are not so used as to obscure the labeling required by these rules. (4-8-94)

008. INSPECTION OF RETAIL RAW MILK PRODUCERS.

01. Requirements. Each dairy farm whose retail raw milk or retail raw milk products are intended for consumption within the state of Idaho or its jurisdiction shall be inspected by the regulatory agency prior to the issuance of a permit. (4-8-94)

a. Following the issuance of a permit, the regulatory agency shall inspect each retail raw milk producer at least once every three (3) months. (4-8-94)

b. Should the violation of any requirement set forth in Sections 100 through 220, 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 Sections 100 through 220. Any violation of the same requirement of Sections 100 through 220 on such second inspection shall call for permit suspension in accordance with Section 006 or court action. (4-8-94)

c. 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. (4-8-94)

d. Every retail raw milk producer shall, upon request of the regulatory agency, permit access of officially designated persons to all parts of his establishment or facilities to determine compliance with the provision of these rules. A retail raw milk producer shall furnish the regulatory agency, upon request, for official use only, a true statement of the actual quantities of retail raw milk and retail raw milk products sold and records of inspections and tests. (4-8-94)

e. It shall be unlawful for any person who, in an official capacity, obtains any information under the provisions of these rules which is protected as a trade secret, including information as to the quantity, quality, source or disposition of retail raw milk or retail raw milk products, or results of inspections or tests thereof to use such information to his own advantage or to reveal it to any unauthorized person. (4-8-94)

02. Administrative Procedures. (4-8-94)

a. **Inspection Frequency.** One (1) retail raw milk producer inspection every three (3) months is not a desirable frequency; it is instead a legal minimum. Retail raw milk producers experiencing difficulty meeting requirements should be visited more frequently. Inspections shall be made of retail raw milk producers at different times of the day, in order to ascertain if the processes of equipment assembly, sanitizing, cleaning, and other procedures comply with the requirements of these rules. (4-8-94)

b. **Enforcement Procedure.** This section provides that a retail raw milk producer shall be subject to suspension of permit, or court action, if two (2) successive inspections disclose violation of the same requirement. Experience has demonstrated that strict enforcement of these rules leads to a better and friendlier relationship between the regulatory agency and the retail raw milk industry than does a policy of enforcement which seeks to

excuse violations and to defer penalty therefor. The sanitarian's criterion of satisfactory compliance should be neither too lenient nor unreasonably stringent. When a violation is discovered, the sanitarian should point out to the retail raw milk producer the requirement that has been violated, discuss a method for correction, and set a time for correcting the violated requirement. (4-8-94)

c. The penalties of suspension or revocation of permit, or court action, are provided to prevent continued violation of the provisions of these rules but are worded to protect the dairy industry against unreasonable or arbitrary action. When a condition is found which constitutes an imminent health hazard, prompt action is necessary to protect the public health; therefore, the regulatory agency is authorized, in Section 006 to suspend the permit immediately. However, except for such emergencies, no penalty is imposed on the retail raw milk producer upon the first violation of any of the sanitation requirements listed in Sections 100 through 220. A retail raw milk producer found violating any requirement must be notified in writing and given a reasonable time to correct the violation before a second inspection is made. The requirement of giving written notice shall be deemed to have been satisfied by the report, as required by this section. After receipt of a notice of violation, but before the allotted time has elapsed, the retail raw milk producer shall have an opportunity to appeal the sanitarian's interpretation to the regulatory agency or for an extension of the time allowed for correction. (4-8-94)

d. Inspection Reports. A copy of the inspection report shall be filed by the regulatory agency and retained for at least twelve (12) months. The results shall be entered on appropriate ledger forms. The use of a computer or other information retrieval system may be used. Examples of field inspection forms are included in the appendix. (4-8-94)

009. THE EXAMINATION OF RAW MILK AND RAW MILK PRODUCTS.

01. Requirements. The regulatory agency shall collect a representative sample of retail raw milk and of each retail raw milk product from each retail raw milk producer. All samples shall be collected and delivered to a location approved by the regulatory agency. (4-8-94)

a. Each month, at least one (1) sample of each raw milk product defined in these rules, plus at least one (1) sample per month from the bulk supply, shall be taken from every retail raw milk producer. Samples of retail raw milk and retail raw milk products shall be taken while in the possession of the producer at any time prior to delivery to the store or consumer. Samples of raw milk and retail raw milk products from dairy retail stores, grocery stores, and other places where retail raw milk and retail raw milk products are sold may be examined periodically as determined by the results of such examination shall be used to determine compliance with Sections 005 and 007. Proprietors of such establishments shall furnish the regulatory agency, upon request, with the names of all retail raw milk producers from whom retail raw milk or retail raw milk products are obtained. (4-8-94)

b. Required bacterial counts, somatic cell counts, coliform counts and cooling temperature checks shall be performed on raw milk. In addition, antibiotic tests on each retail raw milk producer's milk shall be conducted at least monthly. (4-8-94)

c. Whenever two (2) of the last four (4) consecutive bacterial counts, somatic cell count, coliform determinations, or cooling temperatures, taken on separate days from separate packaging lots, exceed the limit of the standard for the retail raw milk or retail raw milk products, the regulatory agency shall send a written notice thereof 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 such notice, but not before the lapse of three (3) days. Immediate suspension of permit in accordance with Section 006 or court action 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. (4-8-94)

d. Whenever an antibiotic or pesticide residue test is positive, an additional sample shall be taken and tested for antibiotic or pesticide residues and no retail raw milk shall be offered for sale until it is shown by this or a subsequent sample to be free of antibiotic or pesticide residues or below the actionable levels established for such residues. An investigation shall be made to determine the cause, and the cause shall be corrected. (4-8-94)

e. 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 latest edition

of "Standard Methods for the Examination of Dairy Products" of the American Public Health Association, and the latest 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 the "Evaluation of Milk Laboratories", 1985 Recommendations of the United States Public Health Service/Food and Drug Administration as amended. (4-8-94)

02. Administrative Procedures. (4-8-94)

a. Enforcement Procedures. All violations of bacteria, coliform, confirmed somatic cell counts, and cooling temperature standards should be followed promptly by inspection to determine and correct the cause. (4-8-94)

b. Laboratory Techniques. Procedures for the collection and holding of samples; the selection and preparation of apparatus, media and reagents; and the analytical procedures, incubation, reading, and reporting of results, shall be in substantial compliance with Standard Methods for the Examination of Dairy Products and the Official Methods of Analysis. The procedures shall be those specified therein for: Standard plate count at thirty-two degrees centigrade (32C). Simplified methods for viable counts of raw milk at thirty-two degrees centigrade (32C). Coliform test with solid media at thirty-two degrees centigrade (32C). Disc assay methods for antibiotics. Confirmatory methods for the detection of abnormal milk. Any other tests which have been approved by the Food and Drug Administration to be equally accurate, precise, and practical. (4-8-94)

010. STANDARDS FOR RAW MILK AND RAW MILK PRODUCTS AND TABLE.

01. Requirements. All retail raw milk shall be produced to conform with the following chemical, bacteriological, and temperature standards, and the sanitation requirements of Sections 100 through 220. (4-8-94)

02. TABLE 1. Chemical, Bacteriological, And Temperature Standards. (4-8-94)

RETAIL RAW MILK	
Temperature	Cooled to forty degrees Fahrenheit (40F or 5C) or less within two (2) hour after milking provided that the blend temperature after the first and subsequent milking does not exceed forty-five degrees Fahrenheit (45F or 7C).
Bacterial Limits	Retail raw milk shall not exceed fifteen thousand (15,000) per ml.
Coliform Limits	Retail raw milk shall not exceed fifty (50) per ml.
Antibiotics	No zone equal to or greater than sixteen (16) mm with the Bacillus Stearothermophilus Disc Assay Method or tests positive by a testing method approved by the regulatory agency.
Somatic Cell Counts	Retail raw milk shall not exceed five hundred thousand (500,000) per ml.
Added Water levels	Water content must not raise the freezing point more than three percent (3%) of negative five hundred forty hundredths (-.540)

011. -- 100. (RESERVED).

101. ABNORMAL MILK.

01. Requirements. Cows which show evidence of the secretion of abnormal milk in one (1) or more quarters, based upon bacteriological, chemical, or physical examination, 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. (4-8-93)

02. Public Health Reason. The health of the cow is a very important consideration because a number

of diseases of cattle, including salmonellosis, staphylococcal infection, and streptococcal infection, may be transmitted to man through the medium of milk. The organisms of most of these diseases may get into the milk either directly from the udder, or indirectly through infected body discharges which may drop, splash, or be blown into the milk. Bovine mastitis is an inflammatory and, generally, highly communicable disease of the bovine udder. Usually, the inciting organism is a streptococcus of bovine origin (type B), but the disease is often caused by a staphylococcus or other infectious agent. Occasionally cows' udders become infected with hemolytic streptococci of human origin, which may result in milkborne epidemics of scarlet fever or septic sore throat. The toxins of staphylococci, and possibly other organisms, in milk may cause severe gastroenteritis. (4-8-93)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-93)

a. Milk from cows being treated with medicinal agents, which are capable of being secreted in the milk, is not offered for sale for such period as is recommended by the attending veterinarian or as indicated on the package label of the medicinal agent. (4-8-93)

b. Milk from cows treated with or exposed to insecticides not approved for use on dairy cattle by the U.S. Environmental Protection Agency is not offered for sale. (4-8-93)

c. The regulatory agency requires such additional tests for the detection of abnormal milk as he deems necessary. (4-8-93)

d. Bloody, stringy, off-colored milk, or milk that is abnormal to sight or odor, is so handled and disposed of as to preclude the infection of other cows and the contamination of milk utensils. (4-8-93)

e. Cows secreting abnormal milk are milked last or in separate equipment which effectively prevents the contamination of the wholesome supply. (4-8-93)

f. Equipment, utensils, and containers used for the handling of abnormal milk are not used for the handling of raw milk to be offered for sale as retail raw milk, unless they are first cleaned and effectively sanitized. (4-8-93)

g. Processed animal waste derivatives used as a feed ingredient for any portion of the total ration of the lactating dairy animal have been: Properly processed in accordance with those requirements contained in the model regulations for processed animal wastes developed by the Association of American Feed Control Officials; and do not contain levels of deleterious substances, harmful pathogenic organisms, or other toxic substances which are secreted in the milk at any level that may be deleterious to human health. (4-8-93)

h. Unprocessed poultry litter and unprocessed recycled animal body discharges are not fed to lactating dairy animals. (4-8-93)

102. MILKING BARN, STABLE, OR PARLOR -- CONSTRUCTION.

01. Requirements. A milking barn, stable, or parlor shall be provided on all dairy farms in which the milking herd shall be housed during milking time operations. The areas used for milking purposes shall: (4-8-94)

a. Have floors constructed of concrete or equally impervious material; (4-8-94)

b. Have walls and ceiling which are smooth, painted or finished in an approved manner, in good repair, ceiling dust-tight; (4-8-94)

c. Have separate stalls or pens for horses, calves, and bulls; (4-8-94)

d. Be provided with natural or artificial light, well distributed for day or night milking; (4-8-94)

e. Provide sufficient air space and air circulation to prevent condensation and excessive odors; (4-8-94)

- f. Not be overcrowded; and (4-8-94)
- g. Have dust-tight covered boxes or bins, or separate storage facilities for ground, chopped, or concentrated feed. (4-8-94)

02. Public Health Reason. When milking is done elsewhere than in a suitable place provided for this purpose, the milk may be contaminated. Floors constructed of concrete or other impervious materials can be kept clean more easily than floors constructed of wood, earth, or similar materials, and are more apt to be kept clean. Painted, or properly finished walls and ceilings encourage cleanliness. Tight ceilings and feed rooms reduce the likelihood of dust and extraneous material getting into the milk. Adequate light makes it more probable that the barn will be clean, and that the cows will be milked in a sanitary manner. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

- a. A milking barn, stable, or parlor is provided on all dairy farms. (4-8-94)
- b. Gutters, floors, and feed troughs are constructed of good quality concrete or equally impervious material. Floors shall be easily cleaned, brushed surfaces permitted, and shall be graded to drain and maintained in good repair and free of excessive breaks or worn areas that may create pools. (4-8-94)
- c. Gravity flow manure channels in milking barns, if used, are properly constructed. (4-8-94)
- d. Walls and ceilings are finished with properly treated wood, tile, smooth-surfaced concrete, cement plaster, brick, or other equivalent materials with light colored surfaces. Walls, partitions, doors, shelves, windows, and ceilings shall be kept in good repair; and surfaces shall be refinished whenever wear or discoloration is evident. (4-8-94)
- e. Whenever feed is stored overhead, ceilings shall be constructed to prevent the sifting of chaff and dust into the milking barn, stable or parlor. If a hay opening is provided from loft into the milking portion of the barn, such opening shall be provided with a dust-tight door which shall be kept closed during milking operations. (4-8-94)
- f. Bull pens, maternity and calf stalls, and horse stalls are partitioned from the milking portion of the barn. Such portions of the barn that are not separated by tight partitions shall comply with all requirements of this item. (4-8-94)
- g. The milking barn is provided with natural or artificial light to insure that all surfaces and particularly the working areas will be plainly visible. The equivalent of at least ten (10) foot-candles of light in all working areas shall be provided. (4-8-94)
- h. Air circulation is sufficient to minimize odors and to prevent condensation upon walls and ceilings. (4-8-94)
- i. Overcrowding is not evidenced by the presence of calves, cows, or other barnyard animals in walks or feed alleys. Inadequate ventilation and excessive odors may also be evidence of an overcrowded barn. (4-8-94)
- j. A dust-tight partition, provided with doors that are kept closed except when in actual use, shall separate the milking portion of the barn from any feed room or silo in which feed is ground or mixed, or in which sweet feed is stored. Feed may be stored in the milking portion of the barn only in such manner as will not increase the dust content of the air, attract flies, or interfere with cleaning of the floor, as in covered, dust-tight boxes or bins. Open feed dollies or carts may be used for distributing the feed, but not storing feed, in the milking barn. (4-8-94)

103. MILKING BARN, STABLE OR PARLOR -- CLEANLINESS.

01. Requirements. The interior shall be kept clean. Floors, walls, ceilings, windows, pipelines, and equipment shall be free of filth or litter, and shall be clean. Swine and fowl shall be kept out of the milking barn. (4-8-94)

02. Public Health Reason. A clean interior reduces the chances of contamination of the milk or milk pails during milking. The presence of other animals increases uncleanliness and the potential for spread of disease. (4-8-94)

- 03. Administrative Procedures.** This item is deemed to be satisfied when: (4-8-94)
- a. The interior of the milking barn, stable, or parlor is kept clean. (4-8-94)
 - b. Leftover feed in feed mangers appears fresh and is not wet or soggy. (4-8-94)
 - c. The bedding material, if used, does not contain more manure than has accumulated since the previous milking. (4-8-94)
 - d. Outside surfaces of pipeline systems located in the milking barn, stable, or parlor are reasonably clean. (4-8-94)
 - e. Gutter cleaners are reasonably clean. (4-8-94)
 - f. All pens, calf stalls, and bull pens, if not separated from the milking barn, stable, or parlor, are clean. (4-8-94)
 - g. Swine and fowl are kept out of the milking barn. (4-8-94)
 - h. Gravity flow manure channels in milking barns, if used, shall be maintained as approved by the health authority. (4-8-94)

04. Cleaning Method. The method of cleaning is immaterial. Dairymen whose barns are provided with water under pressure should scrub the floors after each milking with a stiff-bristled brush. In barns in which water under pressure is not available, the floors may be brushed dry and limed. In the latter event, care should be exercised to prevent caking of the lime. When lime or phosphate is used, it shall be spread evenly on the floor as a thin coating. If clean floors are not maintained by this method, the sanitarian should require cleaning with water. (4-8-94)

104. COWYARD.

01. Requirements. 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 cattle-housing 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. (4-8-94)

02. Public Health Reason. The cowyard is interpreted to be that enclosed or unenclosed area in which the cows are apt to congregate, approximately adjacent to the barn, including cattle-housing areas. This area is, therefore, particularly apt to become filthy with manure droppings, which may result in the soiling of the cows' udders and flanks. The grading and drainage of the cowyard, as far as are practicable, are required because wet conditions are conducive to fly breeding, and make it difficult to keep manure removed and the cows clean. If manure and barn sweepings are allowed to accumulate in the cowyard, fly breeding will be promoted, and the cows, because of their habit of lying down, will be more apt to have manure-soiled udders. Cows should not have access to piles of manure, in order to avoid the soiling of udders and the spread of diseases among cattle. (4-8-94)

- 03. Administrative Procedures.** This item is deemed to be satisfied when: (4-8-94)
- a. The cowyard, which is the enclosed or unenclosed area adjacent to the milking barn in which the cows may congregate, including cattle-housing areas and feed lots, is graded and drained; depressions and soggy areas are filled; cow lanes are reasonably dry. (4-8-94)
 - b. Approaches to the barn door and the surroundings of stock watering and feeding stations are solid

to the footing of the animals. (4-8-94)

c. Wastes from the barn or milk-house are not allowed to pool in the cowyard. Cowyards which are muddy due to recent rains should not be considered as violating this item. (4-8-94)

d. Manure, soiled bedding, and waste feed are not stored or permitted to accumulate therein in such a manner as to permit the soiling of cows' udders and flanks. Cattle-housing areas, i.e. stables without stanchions, such as loose-housing stables, pen stables, resting barns, holding barns, loafing sheds, wandering sheds, and free-stall housing shall be considered a part of the cowyard. Manure packs shall be solid to the footing of the animal. (4-8-94)

e. Cowyards are kept reasonably free of cattle droppings. Cattle droppings shall not be allowed to accumulate in piles that are accessible to the animals. (4-8-94)

105. MILKHOUSE AND PACKAGING AREA -- CONSTRUCTION AND FACILITIES.

01. Requirements. A milkhouse and a packaging area of sufficient size shall be provided, in which the cooling, handling, packaging, and storing of milk and the washing, sanitizing, and storing of milk containers and utensils shall be conducted, except as provided for in Section 112. (4-8-94)

a. The milkhouse and the packaging area 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. (4-8-94)

b. The walls and ceilings shall be constructed of smooth material, in good repair, well painted, or finished in an equally suitable manner. (4-8-94)

c. The milkhouse and the packaging area shall have adequate natural or artificial light and be well ventilated. (4-8-94)

d. The milkhouse and the packaging area shall be used for no other purpose than milkhouse or packaging 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 hinged to be single acting is provided. (4-8-94)

e. Water under pressure shall be piped into the milkhouse and the packaging area. (4-8-94)

f. The milkhouse and the packaging area shall be equipped with a two (2) compartment wash vat and adequate hot water heating facilities. (4-8-94)

02. Public Health Reason. Unless a suitable, separate place is provided for the cooling, handling, and storing of milk and for the washing, sanitizing and storage of milk utensils, the milk or the utensils may become contaminated. Construction which permits easy cleaning promotes cleanliness. A well drained floor of concrete or other impervious material promotes cleanliness. Ample light promotes cleanliness, and proper ventilation reduces the likelihood of odors and condensation. A well equipped milkhouse which is separated from the barn and the living quarters provides a safeguard against the exposure of milk and milk utensils to infection from persons other than regular milk handlers, and from insects and dust. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. A separate milkhouse and packaging area of sufficient size is provided for the cooling, handling, packaging and storing of milk. The washing, sanitizing, and storing of milk containers and utensils shall be performed in a separate room, provided that these rooms shall not be used as a sales room or room of public access, except as provided for in Section 112. (4-8-94)

b. The floors of all milkhouses, packaging areas, and utensil washing areas are constructed of good quality concrete, float finish permissible, or equally impervious tile, or brick laid closely with impervious material,

or metal surfacing with impervious joints, or other material the equivalent of concrete and maintained free of breaks, depressions, and surface peelings. (4-8-94)

c. The floor slopes to drain so that there are no pools of standing water. The joints between the floor and the walls shall be watertight. (4-8-94)

d. The liquid wastes are disposed of in a sanitary manner; all floor drains are accessible and are trapped if connected to a sanitary sewer. (4-8-94)

e. Walls and ceilings are constructed of smooth dressed lumber or similar material, well painted with a light-colored washable paint, and are in good repair. Surfaces and joints shall be tight and smooth. Sheet metal, tile, cement block, brick, concrete, cement plaster, or similar materials of light color may be used; the surfaces and joints shall be smooth. (4-8-94)

f. A minimum of twenty (20) foot-candles of light is provided at all working areas from natural or artificial light for milkhouse, packaging area, and utensil washing operations. (4-8-94)

g. Windows and solid doors are closed during dusty weather. (4-8-94)

h. The milkhouse, packaging area, and utensil washing areas are adequately ventilated to minimize odors and condensation on floors, walls, ceilings, and clean utensils. (4-8-94)

i. Vents, if installed, and lighting fixtures are installed in a manner to preclude the contamination of bulk milk tanks or clean utensil storage areas. (4-8-94)

j. The milkhouse, packaging area, and utensil washing areas are used for no other purpose than milkhouse or utensil washing operations. (4-8-94)

k. There is no direct opening into any barn, stable, or room used for domestic purposes; except that an opening between the milkhouse or packaging area, and milking barn, stable, utensil washing area or parlor is permitted when a tight-fitting, self-closing solid door hinged to be single or double acting is provided. (4-8-94)

l. A vestibule, if used, complies with the applicable milkhouse construction requirements. (4-8-94)

m. The transfer of milk from a bulk-holding/cooling tank to the packaging area is through sanitary piping running directly from the milkroom to the packaging area. (4-8-94)

n. Water under pressure is piped into the milkhouse and packaging area. (4-8-94)

o. Each milkhouse, packaging area, or utensil washing area is provided with facilities for heating water in sufficient quantity and to such temperatures for the effective cleaning of all equipment and utensils. (4-8-94)

p. The milkhouse is equipped with a wash-and-rinse vat having at least two (2) compartments. Each compartment must be of sufficient size to accommodate the largest utensil or container used. The cleaning-in-place vat for milk pipelines and milk machines may be accepted as one part of the two (2) compartment vat; provided, that the cleaning-in-place station rack in or on the vat and the milking machines inflations and appurtenances are completely removed from the vat during the washing, rinsing, or sanitizing of other utensils and equipment. (4-8-94)

q. Where manual washing and sanitizing is employed each packaging area and utensil and container washing area is provided with a three (3) compartment sink. (4-8-94)

106. MILKHOUSE OR ROOM -- CLEANLINESS.

01. Requirements. 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 or utensil washing area activities shall be permitted in the milkroom or utensil washing area. The milkroom or utensil washing area shall be free of trash, animals, and fowl. (4-8-94)

02. Public Health Reason. Cleanliness in the milkroom or utensil washing area reduces the likelihood of contamination of the milk. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. The milkroom or utensil washing area structure, equipment, and other milkroom or utensil washing area facilities used in its operation or maintenance are clean at all times. (4-8-94)

b. Incidental articles such as desks, refrigerators, and storage cabinets may be in the milkroom or utensil washing area, provided they are kept clean and ample space is available to conduct the normal operations in the milkroom or utensil washing area and will not cause contamination of the milk. (4-8-94)

c. Vestibules, if provided, are kept clean. (4-8-94)

d. Animals and fowl are kept out of the milkroom or utensil washing area. (4-8-94)

107. TOILET.

01. Requirements. Every dairy farm shall be provided with one (1) or more toilets, conveniently located and properly constructed, operated, and maintained in a sanitary manner. They shall comply with IDAPA 16.01.03, "Rules For Individual and Subsurface Sewage Disposal" where applicable. The waste shall be inaccessible to flies and shall not pollute the soil surface or contaminate any water supply. (4-8-94)

02. Public Health Reason. The organisms of typhoid fever, dysentery, and gastrointestinal disorders may be present in the body wastes of persons who have these diseases. In the case of typhoid fever, well persons, i.e. carriers, also may discharge the organisms in their body wastes. If a toilet is not fly tight, and so constructed as to prevent overflow, infection may be carried from the excreta to the milk, either by flies or through the pollution of ground water supplies or streams to which the cows have access. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. There is at least one (1) flush toilet connected to a public sewer system or to an individual sewage-disposal system or a chemical toilet, earth privy or other type of privy. Such sewage systems shall be constructed and operated in accordance with plans and instructions of the State agency responsible. (4-8-94)

b. A toilet or privy is convenient to the milking barn and the milkroom. There shall be no evidence of human defecation or urination about the premises. (4-8-94)

c. No privy opens directly into the milkroom or milk packaging area. (4-8-94)

d. The toilet room, including all fixtures and facilities, is kept clean and free of flies and odors. (4-8-94)

e. Where flush toilets are used, doors to toilet rooms are tight and self-closing. All outer openings in toilet rooms shall be screened or otherwise protected against the entrance of flies. (4-8-94)

f. Vents of earth pits are screened. (4-8-94)

108. WATER SUPPLY.

01. Requirements. Water for milkhouse, milking operations and utensil washing area shall be from a supply properly located, protected, and operated, and shall be easily accessible, adequate and of a safe, sanitary quality. (4-8-94)

02. Public Health Reason. A dairy farm water supply should be accessible in order to encourage its use in ample quantity in cleaning operations; it should be adequate so that cleaning and rinsing will be thorough; and

it should be of safe, sanitary quality in order to avoid contamination of milk utensils. A polluted water supply, used in the rinsing of the dairy utensils and containers, may be more dangerous than a similar water supply which is used for drinking purposes only. Bacteria grow much faster in milk than in water, and the severity of an attack of a given disease depends largely upon the size of the dose of disease organisms taken into the system. A small number of disease organisms consumed in a glass of water from a polluted well may possibly result in no harm, whereas, if left in a milk utensil which has been rinsed with the water, they may, after several hours' growth in the milk, increase in such numbers as to cause disease when consumed. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. The water supply for milkhouse, milking operations and utensil washing areas is approved as safe by the regulatory authority. (4-8-94)

b. No cross-connection exists between a safe water supply and any unsafe or questionable water supply, or any other source of pollution. (4-8-94)

c. There are no submerged inlets through which a safe water supply may be contaminated. (4-8-94)

d. The well or other source of water is located and constructed in such a manner that neither underground nor surface contamination from any sewerage systems, privy, or other source of pollution can reach such water supply. (4-8-94)

e. New individual water supplies and water supply systems which have been repaired or otherwise become contaminated are thoroughly disinfected before being placed in use. The supply shall be made free of the disinfectant by pumping to waste before any sample for bacteriological testing shall be collected. (4-8-94)

f. All containers and tanks used in the transportation of water are sealed and protected from possible contamination. These containers and tanks shall be subjected to a thorough cleaning and a bacteriological treatment prior to filling with potable water to be used at the dairy farm. To minimize the possibility of contamination of the water during its transfer from the potable tanks to the elevated or ground-water storage at the dairy farm, a suitable pump, hose, and fittings shall be provided. When the pump, hose and fittings are not being used, the outlets shall be capped and stored in a suitable dustproof enclosure so as to prevent their contamination. The storage tank at the dairy farm shall be constructed of impervious material provided with a dust and rainproof cover, and also provided with an approved-type vent and roof hatch. All new reservoirs or reservoirs which have been cleaned shall be disinfected prior to placing them into service. (4-8-94)

g. Samples for bacteriological examination are taken upon the initial approval of the physical structure based upon the requirements of these rules and when any repair or alteration of the water supply system has been made, and at least every three (3) years; provided, that water supplies with buried well casing seals, installed prior to the adoption of this section, shall be tested at intervals no greater than six (6) months apart. Whenever such samples indicate either the presence of bacteria of the coliform group, or whenever the well casing, pump or seal need replacing or repair, the well casing and seal shall be brought above the ground surface and shall comply with all other applicable construction criteria of this section; provided, that when water is hauled to the dairy farm, such water shall be sampled for bacteriological examination at the point of use and submitted to a laboratory each month. Bacteriological examinations shall be conducted in a laboratory acceptable to the regulatory agency. (4-8-94)

h. Current records of water test results shall be retained on file with the regulatory agency, or as the regulatory agency directs. (4-8-94)

109. UTENSILS AND EQUIPMENT -- CONSTRUCTION.

01. Requirements. All multiuse 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. Multiple-use woven material shall not be used for straining milk. All single-service articles shall have been manufactured, packaged, transported, and handled in a sanitary manner and shall comply with the applicable requirements of Section 211. Articles intended for single-

service use shall not be reused. Farm holding/cooling tanks, welded sanitary piping, and transportation tanks shall comply with the applicable requirements of Sections 210 and 211. (4-8-94)

02. Public Health Reason. Milk containers and other utensils without flush joints cleaned, and accessible surfaces, and not made of durable, noncorrodible material, are apt to harbor accumulations in which undesirable bacterial growth is supported. Single-service articles which have not been manufactured and handled in a sanitary manner may contaminate the milk. Milk pails of small-mouth design, known as hooded milk pails, decrease the possibility of hairs, dust, chaff, and other undesirable foreign substances getting into the milk at the time of milking. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. All multiuse containers, equipment, and utensils which are exposed to milk or milk products, or from which liquids may drip, drain or be drawn into milk or milk products are made of smooth impervious, nonabsorbent, safe materials of the following types: Stainless steel of the AISI (American Iron and Steel Institute) 300 series; or Equally corrosion-resistant, nontoxic metal; or Heat-resistant glass; or Plastic or rubber and rubberlike materials which are relatively inert, resistant to scratching, scoring, decomposition, crazing, chipping, and distortion, under normal use conditions; are nontoxic, fat resistant, relatively nonabsorbent, relatively insoluble, do not release component chemicals or impart flavor or odor to the product, and which maintain their original properties under repeated use conditions. (4-8-94)

b. Single-service articles have been manufactured, packaged, transported and handled in a sanitary manner and comply with the applicable requirements of Section 211. (4-8-94)

c. Articles intended for single-service use are not reused. (4-8-94)

d. All containers, equipment and utensils are free of breaks and corrosion. (4-8-94)

e. All joints in such containers, equipment, and utensils are smooth and free from pits, cracks, or inclusions. (4-8-94)

f. Cleaned-in-place milk pipelines and return-solution lines are self-draining. If gaskets are used, they shall be self-positioning and of material meeting specifications described in Subsection 109.03.a.iv., and shall be of such design, finish, and application as to form a smooth, flush interior surface. If gaskets are not used, all fittings shall have self-positioning faces designed to form a smooth, flush interior surface. All interior surfaces of welded joints in pipelines shall be smooth and free of pits, cracks, and inclusions. (4-8-94)

g. Detailed plans for cleaned-in-place pipeline systems are submitted to the regulatory agency for written approval prior to installation. No alteration or addition shall be made to any milk pipeline system without prior written approval of the regulatory agency. (4-8-94)

h. Strainers, if used, are of perforated metal design, or so constructed as to utilize single-service strainer media. (4-8-94)

i. Seamless hooded pails having an opening not exceeding one-third (1/3) the area of that of an open pail of the same size are used for hand milking and hand stripping. (4-8-94)

j. All milking machines, including heads, milk claws, milk tubing, and other milk-contact surfaces can be easily cleaned and inspected. Pipelines, milking equipment and appurtenances which require a screwdriver or special tool shall be considered easily accessible for inspection providing the necessary tools are available at the milkhouse. (4-8-94)

k. Farm holding/cooling tanks, welded sanitary piping, and transportation tanks comply with the applicable requirements of Sections 210 and 211. (4-8-94)

110. UTENSILS AND EQUIPMENT -- CLEANING.

01. Requirements. The product-contact surfaces of all multiuse containers, equipment, and utensils used in the handling, storage, or transportation of milk shall be cleaned after each usage. (4-8-94)

02. Public Health Reason. Milk cannot be kept clean or free of contamination if permitted to come into contact with unclean containers, utensils, or equipment. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when the product-contact surface of all multiuse containers, equipment, and utensils used in the handling, storage or transportation of milk are cleaned after each usage. (4-8-94)

111. UTENSILS AND EQUIPMENT -- SANITIZATION.

01. Requirements. The product-contact surfaces of all multiuse containers, equipment and utensils used in the handling, storage, or transportation of milk shall be sanitized before each usage. (4-8-94)

02. Public Health Reason. Mere cleaning of containers, equipment, and utensils destruction of all disease organisms which may have been present. Even very small numbers remaining may grow to dangerous proportions, since many kinds of disease bacteria grow rapidly in milk. For this reason, all retail raw milk containers, equipment, and utensils must be treated with an effective sanitizer before each usage. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. All product-contact surfaces of multiuse containers, utensils, and equipment used in the handling, storage, or transportation of retail raw milk are sanitized before each usage by one of the following methods, or by any method which has been demonstrated to be equally effective. (4-8-94)

b. Complete immersion in hot water at a temperature of at least one hundred seventy degrees Fahrenheit or seventy-seven degrees Centigrade (170F or 77C) for at least five (5) minutes, or exposure to a flow of hot water at a temperature of at least one hundred seventy degrees Fahrenheit or seventy-seven degrees Centigrade (170F or 77C) as determined by use of a suitable accurate thermometer at the outlet for at least five (5) minutes. (4-8-94)

c. Complete immersion for at least one (1) minute in, or expose at least one (1) minute to a flow of, a chemical sanitizer with a strength equivalent to fifty (50) ppm available chlorine. All product-contact surfaces must be wetted by the sanitizing solution, and piping so treated must be filled. Sanitizing sprays may be used. Chemical solutions, once used, shall not be reused for sanitizing but may be reused for other purposes. (4-8-94)

112. UTENSILS AND EQUIPMENT -- STORAGE.

01. Requirements. All containers, utensils and equipment used in the handling, storage, or transportation of retail raw milk, unless stored in sanitizing solutions, shall be stored to assure complete drainage, and shall be protected from contamination prior to use; provided, that pipeline milking equipment such as milker claws, inflations, weight 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. (4-8-94)

02. Public Health Reason. Careless storage of utensils which previously have been properly treated is apt to result in recontamination of such utensils, thus rendering them unsafe. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. All milk containers, utensils, and equipment, including milking machine vacuum hoses, are stored in the milkhouse in a sanitizing solution, or on racks, until used. Pipeline milking equipment such as milker claws, inflations, weight jars, meters, milk hoses, milk receivers and milk pumps which are designed for mechanical cleaning may be mechanically cleaned, sanitized and stored in the milking barn or parlor provided this equipment is designed, installed and operated to protect the product and solution-contact surface from contamination at all times. Some of the parameters to be considered in determining protection are proper location of equipment, proper drainage

of equipment and adequate and properly located lighting and ventilation. The milking barn or parlor must be used only for milking. Concentrates may be fed in the barn during milking but the barn shall not be used for the housing of cattle. When manual cleaning of product-contact surfaces is necessary, the cleaning shall be done in the milkhouse.

(4-8-94)

b. Means are provided to effect complete drainage of equipment when such equipment cannot be stored to drain freely.

(4-8-94)

c. Strainer pads, parchment papers, gaskets and similar single-service articles are stored in a suitable container or cabinet and protected against contamination.

(4-8-94)

113. UTENSILS AND EQUIPMENT -- HANDLING.

01. Requirements. After sanitization, all containers, utensils, and equipment shall be handled in such manner as to prevent contamination of any product-contact surface.

(4-8-94)

02. Public Health Reason. Handling milk pails by inserting the fingers under the hood, carrying an armful of milk-can covers against a soiled shirt or jacket, or similar handling of utensils, will nullify the effect of sanitization.

(4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when:

(4-8-94)

a. Sanitized product-contact surfaces, including farm holding/cooling tank openings and outlets, are protected against contact with unsanitized equipment and utensils, hands, clothing, splash, condensation, and other sources of contamination.

(4-8-94)

b. Any sanitized product-contact surface, which has been otherwise exposed to contamination, is again cleaned and sanitized before being used.

(4-8-94)

114. MILKING -- FLANKS, UDDERS, AND TEATS.

01. Requirements. 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.

(4-8-94)

02. Public Health Reason. If milking is done elsewhere than in a suitable place provided for this purpose, the milk may become contaminated. Cleanliness of the cows is one of the most important factors affecting the bacterial count of the milk. Under usual farm conditions, cows contaminate their udders by standing in polluted water, or by lying down in the pasture or cowyard. Unless the udders and teats are carefully cleaned just before milking, particles of filth are apt to drop or be drawn into the milk. Such contamination of the milk is particularly dangerous because cow manure may contain the organisms of brucellosis and tuberculosis, and polluted water may contain the organisms of typhoid fever and other intestinal diseases. Rinsing or wiping the udders and teats with a sanitizing solution has the advantage of giving an additional margin of safety, with reference to such disease organisms as are not removed by ordinary cleaning, and it is helpful in the control of mastitis.

(4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when:

(4-8-94)

a. Milking is done in a milking barn, stable, or parlor.

(4-8-94)

b. Brushing is completed prior to milking.

(4-8-94)

c. Flanks, bellies, tails, and udders are clipped as often as necessary to facilitate cleaning of these areas and are free from dirt. The hair on the udders shall be of such length that it is not incorporated with the teat in the inflation during milking.

(4-8-94)

d. Udders and teats of all milking cows are cleaned and treated with a sanitizing solution and are

relatively dry just prior to milking. (4-8-94)

- e. Wet hand milking is prohibited. (4-8-94)

115. MILKING -- SURCINGLES, MILK STOOLS, AND ANTIKICKERS.

01. Requirements. Surcingles, milk stools, and antikickers shall be kept clean and stored above the floor. (4-8-94)

02. Public Health Reason. Clean milk stools, and clean surcingles or belly straps reduce the likelihood of contamination of milkers' hands between the milking of one (1) cow and the milking of another. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

- a. Milk stools are not padded and are constructed to be easily cleaned. (4-8-94)
- b. Milk stools, surcingles, and antikickers are kept clean and are stored above the floor in a clean place in the milking barn, stable, parlor, or milkhouse, when not in use. (4-8-94)

116. PROTECTION FROM CONTAMINATION.

01. Requirements. Milking and milk house 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. (4-8-94)

02. Public Health Reason. Because of the nature of milk and its susceptibility to contamination by disease producing bacteria and other contaminants, every effort should be made to provide adequate protection for the milk at all times. This should include the proper placement of equipment so that work areas in the milking barn and milkhouse are not overcrowded. The quality of any air which is used for the agitation or movement of milk or is directed at a milk product-contact surface should be such that it will not contaminate the milk. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. Equipment and operations are so located within the milking barn and milkhouse as to prevent overcrowding and contamination of cleaned and sanitized containers, equipment, and utensils by splash, condensation, or manual contact. (4-8-94)

b. During processing, pipelines and equipment used to contain or conduct retail raw milk and retail raw milk products shall be effectively separated from tanks or circuits containing cleaning or sanitizing solutions. (4-8-94)

c. All milk which has overflowed, leaked, been spilled, or improperly handled is discarded. (4-8-94)

d. All product-contact surfaces of containers, equipment, and utensils are covered or otherwise protected to prevent the access of insects, dust, condensation, and other contamination. All openings, including valves and piping attached to milk storage and transport tanks, pumps, or vats, shall be capped or otherwise properly protected. Gravity type strainers in the milkhouse do not have to be covered. Milk pipelines used to convey milk from precoolers to the farm bulk tank must be fitted with effective drip deflectors. (4-8-94)

e. The receiving receptacle is raised above the floor, i.e., as on a dolly or cart, or placed at a distance from the cows to protect it against manure and splash when milk is poured or strained in the milking barn. Such receptacle shall have a tight-fitting cover which shall be closed except when milk is being poured. (4-8-94)

f. Each pail or container of milk is transferred immediately from the milking barn, stable, or parlor to the milkhouse. (4-8-94)

g. Pails, cans, and other equipment containing milk are properly covered during transfer and storage.

(4-8-94)

h. Whenever air under pressure is used for the agitation or movement of milk, or is directed at a milk-contact surface, it is free of oil, dust, rust, excessive moisture, extraneous materials, and odor, and shall otherwise comply with applicable standards. (4-8-94)

i. There have been no vitamins, minerals, flavors or other substances added to the milk. (4-8-94)

j. Antibiotics and medicinals are stored in such a manner that they cannot contaminate the milk or milk product-contact surface of the equipment, containers or utensils. (4-8-94)

117. PERSONNEL -- HAND-WASHING FACILITIES.

01. Requirements. Adequate hand-washing facilities shall be provided, including a lavatory fixture with hot and cold or tempered running water, soap or detergent, and individual sanitary towels, convenient to the milk house, utensil washing area, milking barn, stable, parlor, and flush toilet. (4-8-94)

02. Public Health Reason. The hands of the employee may come into contact with the same kind of material that may contaminate the milk. During the course of his duties and natural habits outside of the milking barn, the dairyman's hands must be assumed to have been exposed to body discharges. Washing facilities are required in order to increase the assurance that the employee's hands will be washed. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. Hand-washing facilities are located convenient to the milkhouse, packaging area, utensil washing area, milking barn, stable, parlor and flush toilet. (4-8-94)

b. Hand-washing facilities include soap or detergent, hot and cold or tempered running water, individual sanitary towels, and a lavatory fixture. Utensil wash and rinse vats shall not be considered as hand-washing facilities. (4-8-94)

118. PERSONNEL -- CLEANLINESS.

01. Requirements. Hands shall be washed clean and dried with an individual sanitary towel immediately before milking, before performing any milkhouse function or utensil washing, 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. (4-8-94)

02. Public Health Reason. The reasons for clean hands of the persons doing this work are similar to those for cleanliness of the cows' udders. The employee's hands must be assumed to have been exposed to contamination during the course of his normal duties on the farm and at milking time. Because the hands of all workers frequently come into contact with their clothing it is important that the clothes worn during milking and the handling of milk be clean. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. Hands are washed clean and dried with an individual sanitary towel immediately beginning work, and immediately after the interruption of any of these activities. (4-8-94)

b. Employees wear clean outer garments while milking or handling milk, milk containers, utensils, or equipment. (4-8-94)

119. COOLING.

01. Requirements. Retail raw milk shall be cooled to forty degrees Fahrenheit or five degrees Centigrade (40F or 5C) or less within two (2) hours after milking; provided, that the blend temperature after the first milking and subsequent milkings does not exceed forty-five degrees Fahrenheit or seven degrees Centigrade (45F or

7C). (4-8-94)

02. Public Health Reason. Milk produced by disease-free cows and under clean bacteria immediately after milking. These multiply to enormous numbers in a few hours unless the milk is cooled. When the milk is cooled quickly to forty degrees Fahrenheit or five degrees Centigrade (40F or 5C) or less, however, there is only a slow increase in numbers of bacteria. In order to understand this, it is necessary to recall merely that bacteria are actually infinitesimal plants, and that most plants do not grow in cold weather. Usually, the bacteria in milk are harmless, and if this were always true there would be no reason to cool milk, except to delay souring. There is, however, no way for the dairyman or regulating officer to be absolutely sure that no disease bacteria have entered the milk even though observance of the other provisions of these rules will greatly reduce this likelihood. The likelihood of transmitting disease is much increased when the milk contains large numbers of disease bacteria. Therefore, it is extremely important for milk to be cooled quickly, so that small numbers of bacteria which may have entered will not multiply. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. Retail raw milk is cooled to forty degrees Fahrenheit or five degrees Centigrade (40F or 5C) or less within two (2) hours after milking; provided, that the blend temperature after the first milking and subsequent milkings does not exceed forty-five degrees Fahrenheit or seven degrees Centigrade (45F or 7C). (4-8-94)

b. Recirculated cold water which is used in plate or tubular coolers or heat exchangers is from a safe source and protected from contamination. Such water shall be tested semiannually and shall comply with bacteriological standards. (4-8-94)

120. VEHICLES.

01. Requirements. All vehicles used for transportation of retail raw milk and retail raw milk products shall be constructed and operated so that the retail raw milk and retail raw milk products are maintained at forty-five degrees Fahrenheit or seven degrees Centigrade (45F or 7C) or less, and are protected from sun, from freezing and from contamination. (4-8-94)

02. Public Health Reason. The exposure of milk to the sun will alter the flavor of milk, and will tend to increase the temperature, thus increasing the possibility of bacterial growth. Freezing alters the physical and chemical properties of milk. Milk and milk products, as well as empty containers, should be protected against contamination at all times. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. All vehicles are kept clean. (4-8-94)

b. Material which is capable of contaminating milk or milk products is not transported with milk or milk products. (4-8-94)

c. Vehicles have fully enclosed bodies with well-fitted solid doors to protect their contents from sun, freezing and contamination. (4-8-94)

d. Transported retail raw milk and milk products are maintained at forty-five degrees Fahrenheit or seven degrees Centigrade (45F or 7C) or less until delivered. (4-8-94)

121. INSECT AND RODENT CONTROL.

01. Requirements. 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 such vermin. Milk rooms and utensil washing areas 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. (4-8-94)

02. Public Health Reason. Proper manure disposal reduces the breeding of flies, which are considered

capable of transmitting infection, by physical contact or through excreta, to milk or milk utensils. Flies visit insanitary places, may carry disease organisms on their bodies and may carry living bacteria for as long as four (4) weeks within their bodies, and may pass them on to succeeding generations by infecting their eggs. Effective screening tends to prevent the presence of flies, which are a public health menace. Flies may contaminate the milk with disease germs, which may multiply and become sufficiently numerous to present a public health hazard. The surroundings of a dairy should be kept neat and clean to encourage cleanliness and reduce insect and rodent harborages. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. Surroundings are kept neat, clean, and free of conditions which might harbor or be conducive to the breeding of insects and rodents. During fly season, manure shall be spread directly on the fields; or stored for not more than four (4) days in a pile on the ground surface, and then spread on the fields; or stored for not more than seven (7) days in an impervious-floored bin, or on an impervious-curbed platform and then spread; or stored in a tight-screened and trapped manure shed; or effectively treated with larvicides; or disposed of in any other manner which controls insect breeding. (4-8-94)

b. Manure packs in loafing areas, stables without stanchions, pen stables, resting barns, wandering sheds and free-stall housing are properly bedded and managed to prevent fly breeding. (4-8-94)

c. Milkrooms and utensil washing areas are free of insects and rodents. (4-8-94)

d. Milkrooms and utensil washing areas are effectively screened or otherwise protected against the entrance of vermin. (4-8-94)

e. Outer milkhouse and utensil washing area doors are tight and self-closing. Outer doors shall open outward. (4-8-94)

f. Effective measures are taken to prevent the contamination of milk, containers, utensils, and equipment by insects and rodents, and by chemicals used to control such vermin. Insecticides and rodenticides not approved for use in the milkhouse or utensil washing areas shall not be stored in the milkhouse or utensil washing areas. (4-8-94)

g. Only insecticides and rodenticides approved for use by the regulatory agency or registered with the U.S. Environmental Protection Agency are used for insect and rodent control. (4-8-94)

h. Insecticides and rodenticides are used only in accordance with manufacturer's label directions and are used so as to prevent the contamination of milk, milk containers, equipment, utensils, feed, and water. (4-8-94)

122. -- 209. (RESERVED).

210. SANITARY PIPING.

01. Requirements. All sanitary piping, fittings, and connections which are exposed to retail raw milk or retail raw milk products, or from which liquids may drip, drain, or be drawn into retail raw milk or retail raw milk products, shall consist of smooth, impervious, corrosion-resistant, nontoxic, easily cleanable material. All piping shall be in good repair. Retail raw milk and retail raw milk products shall be conducted from one (1) piece of equipment to another only through sanitary piping. (4-8-94)

02. Public Health Reason. Milk piping and fittings are sometimes so designed as to be difficult to clean; or they may be constructed of metal which corrodes easily. In either case, it is unlikely that they will be kept clean. Sanitary milk piping is a term which applies to properly designed and properly constructed piping. The purpose of this is to prevent exposure of the product to contamination. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. All sanitary piping, fittings, and connections which are exposed to retail raw milk or retail raw milk

products, or from which liquids may drip, drain, or be drawn into retail raw milk or retail raw milk products, consist of smooth, impervious, corrosion-resistant, nontoxic, easily cleanable material. (4-8-94)

b. All sanitary piping, connections and fittings consist of: stainless steel of the AISI (American Iron and Steel Institute) three hundred (300) series; or equally corrosion-resistant metal which is nontoxic and nonabsorbent; or heat resistant glass; provided, that plastic, or rubber and rubberlike materials, which are relatively inert, resistant to scratching, scoring, decomposition, crazing, chipping, and distortion under normal use conditions; which are nontoxic, fat resistant, relatively nonabsorbent; which do not impart flavor or odor to the product; and which maintain their original properties under repeated use conditions, may be used for gaskets, sealing applications, and for short flexible take down jumpers or connections where flexibility is required for essential or functional reasons. (4-8-94)

c. Sanitary piping, fittings and connections are designed to permit easy cleaning, kept in good repair, and free of breaks or corrosion, and contain no dead ends of piping in which milk may collect. (4-8-94)

d. All interior surfaces of demountable piping, including valves, fittings, and connections are designed, constructed, and installed to permit inspection and drainage. (4-8-94)

e. All cleaned-in-place milk pipelines and return-solution lines are rigid, self-draining, and so supported to maintain uniform slope and alignment. Return solution lines shall be constructed of material meeting the specifications of Subsection 210.03.b. If gaskets are used, they shall be self-positioning, of material meeting the specifications outlined in Subsection 210.03.b., and designed, finished, and applied to form a smooth, flush interior surface. If gaskets are not used, all fittings shall have self-positioning faces designed to form a smooth, flush interior surface. All interior surfaces of welded joints in pipelines shall be smooth and free from pits, cracks, or inclusions. In the case of welded lines, all welds shall be inspected by the use of a borescope or other appropriate available inspection device as they are made; and such welds shall be approved by the regulatory agency. Each cleaning circuit shall have access points for inspection in addition to the entrances and exits. These may be valves, removable sections, fittings, or other means of combinations that are adequate for inspection of the interior of the line. These access points shall be located at sufficient intervals to determine the general condition of the interior surfaces of the line. Detailed plans for welded pipeline systems shall be submitted to the regulatory agency for written approval prior to installation. No alteration or addition shall be made to any welded milk pipeline system without prior written approval from the regulatory agency. (4-8-94)

f. Retail raw milk and retail raw milk products are conducted from one piece of equipment to another only through sanitary milk piping. (4-8-94)

211. CONSTRUCTION AND REPAIR OF CONTAINERS AND EQUIPMENT.

01. Requirements. All multiuse containers and equipment with which retail raw milk or retail raw 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 retail raw milk or retail raw 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. (4-8-94)

02. Public Health Reason. When equipment is not constructed and located so that it can be cleaned easily, and which is not kept in good repair, it is unlikely that it will be properly cleaned. Single-service articles, which have not been manufactured and handled in a sanitary manner may contaminate the milk. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. All multiuse containers and equipment with which retail raw milk or retail raw milk products come into contact are of smooth, impervious, corrosion resistant, and nontoxic material. (4-8-94)

b. All milk-contact surfaces of multiuse containers and equipment consist of: stainless steel of the AISI (American Iron and Steel Institute) three hundred (300) series; or equally corrosion-resistant metal which is nontoxic and nonabsorbent; or heat resistant glass; or plastic or rubber and rubberlike materials which are relatively

inert, resistant to scratching, scoring, decomposition, crazing, chipping, and distortion under normal use conditions; which are nontoxic, fat resistant, relatively nonabsorbent, and do not impart flavor or odor to the product; and which maintain their original properties under repeated use conditions. (4-8-94)

c. All joints in containers, equipment, and utensils are flush and finished as smooth as adjoining surfaces. Where a rotating shaft is inserted through a surface with which retail raw milk or retail raw milk products come into contact, the joint between the moving and stationary surfaces shall be close-fitting. Where a thermometer or temperature sensing element is inserted through a surface with which retail raw milk or retail raw milk products come into contact, a pressure-tight seal shall be provided ahead of all threads and crevices. (4-8-94)

d. All openings in covers of tanks, vats, separators, etc., are protected by raised edges, or otherwise to prevent the entrance of surface drainage. Condensation-diverting aprons shall be provided as close to the tank or vat as possible on all pipes, thermometers, or temperature sensing elements, and other equipment extending into a tank, bowl, vat, or distributor, unless a watertight joint is provided. (4-8-94)

e. All surfaces with which retail raw milk or retail raw milk products come into contact are easily accessible or demountable for manual cleaning or are designed for mechanical cleaning. All product-contact surfaces shall be readily accessible for inspection and shall be self-draining. Wing nuts, bayonet locks, and similar devices shall be used whenever possible in lieu of bolts and nuts, to promote easy disassembly. (4-8-94)

f. There are no threads used in contact with retail raw milk or retail raw milk products except where needed for functional and safety reasons, such as in clarifiers, pumps, and separators. Such threads shall be of a sanitary type. (4-8-94)

g. All multiuse containers and other equipment have rounded corners, are in good repair and free from breaks, crevices, and corrosion. Milk cans shall have umbrella-type covers. (4-8-94)

h. Strainers, if used, are of perforated metal design, and so constructed as to utilize single-service strainer media. Multiple-use woven material shall not be used for straining retail raw milk. (4-8-94)

i. All single service containers, closures, gaskets, and other articles, with which retail raw milk or retail raw milk products come in contact, are nontoxic. (4-8-94)

j. The manufacture, packing, transportation, and handling of single-service containers, closures, caps, gaskets, and similar articles comply with requirements of the Guidelines for the Manufacture of Single-Service Containers for Retail Raw Milk and Retail Raw Milk Products. Inspections and tests shall be made by the regulatory agency or any agency authorized by them. (4-8-94)

212. CLEANING AND SANITIZING OF CONTAINERS AND EQUIPMENT.

01. Requirements. The product-contact surfaces of all multiuse containers, utensils, and equipment used in the transportation, processing, handling, and storage of retail raw milk or retail raw milk products shall be effectively cleaned and shall be sanitized before each use. (4-8-94)

02. Public Health Reason. Retail raw milk and retail raw milk products cannot be kept clean and safe, if permitted to come into contact with containers, utensils, and equipment which have not been properly cleaned and treated. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. All multiuse containers and utensils are thoroughly cleaned after each use, and all equipment is thoroughly cleaned at least once each day used; provided that storage tanks shall be cleaned when emptied and shall be emptied at least every seventy-two (72) hours. Storage tanks which are used to store raw milk longer than twenty-four (24) hours and silo tanks used for the storage of raw milk, shall be equipped with a seven (7) day temperature recording device. (4-8-94)

b. Pipelines or equipment designed for mechanical cleaning meet the following requirements: An

effective cleaning and sanitizing regimen for each separate cleaning circuit shall be followed. A temperature recording device shall be installed in the return solution line to record the temperature and time during which the line or equipment is exposed to cleaning and sanitizing. Temperature recording charts shall be identified, dated, and retained for three (3) months. During each official inspection, the regulatory agency shall examine and initial temperature recording charts to verify the time of exposure to solutions and their temperatures. (4-8-94)

c. Plants in which containers are washed manually are equipped with a two (2) compartment wash-and-rinse vat for this purpose. Such plants shall also provide a steam cabinet or individual steam-jet plate with hood for sanitizing of cleaned containers, or, if sanitizing is done with chemicals, a third treatment vat. (4-8-94)

d. In plants utilizing automatic bottle washers, such washers must provide for bactericidal treatment by means of steam, hot water, or chemical treatment. In soaker-type bottle washers, in which bactericidal treatment depends upon the causticity of the washing solution, the caustic strength for a given soaking time and temperature shall be as specified in the following table listing combinations of causticity, time, and temperature of equal bactericidal value, for soaker tank of soaker-type bottle washers.

TABLE 2 - Combinations of Causticity, Time and Temperature of Equal Soaker-Type Bottle Washers (Based on the National Soft Drink Association (NSDA) specification for beverage bottles)

	Temperature, degrees						
F	170	160	150	140	130	120	110
C	77	71	66	60	54	49	43
Time in minutes	Concentration of NaOH, percent						
3	0.57	0.86	1.28	1.91	2.86	4.27	6.39
5	0.43	0.64	0.96	1.43	2.16	3.22	4.80
7	0.36	0.53	0.80	1.19	1.78	2.66	3.98

NOTE: The NSDA Washington, D.C. 20036 alkali test, the NSDA caustic test, or other suitable test may be used to determine the strength of the soaker solution. The caustic strength shall be tested monthly by the regulatory agency. (4-8-94)

e. When caustic is so used, subsequent final rinsing of the bottles shall be with water which has been treated with heat or chemicals to assure freedom from viable pathogenic or otherwise harmful organisms, to prevent recontamination of the treated bottle during the rinsing operation. (4-8-94)

f. All multiuse containers, equipment and utensils are sanitized before use, employing one or a combination of the methods prescribed under Section 111. Assembled equipment must be sanitized prior to each day's run. Tests to determine the efficiency of sanitization should be made by the regulatory agency at intervals sufficient to satisfy the regulatory agency that the sanitization process is effective. (4-8-94)

g. There sidualbacteria count of multiuse and single-service containers used for packaging retail raw milk and retail raw milk products shall not exceed one (1) per milliliter of capacity, when the rinse test is used, or not over fifty (50) colonies per eight (8) square inches (one (1) per square centimeter) of product-contact surface, when the swab test is used, in three (3) out of four (4) samples taken at random on a given day. All multiuse and single-service containers shall be free of coliform organisms. (4-8-94)

h. When single-service containers are fabricated in another plant which conforms to the guidelines of the FDA, and the regulatory agency has information that they do comply, the regulatory agency may accept the containers as being in conformance without additional tests. If no information is available or there is reason to believe that containers do not conform, or if containers are fabricated in the dairy plant, the regulatory agency shall collect at

least four (4) sets of containers each six (6) months and determine conformance with the bacteriological standards in this section. (4-8-94)

i. Plants which utilize multiuse plastic containers for pasteurized retail raw milk and retail raw milk products shall comply with the following criteria: The plastic material from which the containers are molded shall be of safe material. The plastic material shall comply with the material specifications of Section 211. All containers shall be identified as to plant of manufacture, date of manufacture, and type and class of plastic material used. This information may be by code; provided that the code is revealed to the regulatory agency. A device shall be installed in the filling line capable of detecting in each container before it is filled, volatile organic contaminants in amounts that are of public health significance. Such device must be constructed so that it may be sealed by the regulatory agency to prevent the changing of its sensitivity functioning level. Models using an air injection system and with a testing device built into the detection equipment do not have to be sealed. To assure proper functioning of the system the operator needs to be able to adjust the sensitivity. However, those models utilizing an external testing device must be sealed. Any container detected by the device as being unsatisfactory must be automatically made unusable to prevent refilling. In addition, the device must be interconnected so that the system will not operate unless the detecting device is in proper operating condition. Any other system so designed and operated that will provide equal assurance of freedom from contamination and recognized by the Food and Drug Administration to be equally efficient may be accepted by the regulatory agency. A standard must be available for use of the regulatory agency for testing the proper sensitivity functioning levels of the detection device. The containers shall comply with the applicable construction requirements of Section 7, Item 11P of the 1991 Pasteurized Milk Ordinance. The closure for the container shall be single-service. Screw-type closures shall not be used. The container shall not impart into the product pesticide residual levels or other chemical contaminants in excess of those considered acceptable under the Federal Food, Drug and Cosmetic Act, as amended and regulations issued thereunder. The phrase "Use only for food" shall appear on all containers. (4-8-94)

213. STORAGE OF CLEANED CONTAINERS AND EQUIPMENT.

01. Requirements. After cleaning, all multiuse 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. (4-8-94)

02. Public Health Reason. If containers and equipment are not protected from contamination, the value of sanitization may be partly or entirely nullified. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. All multiuse containers, equipment and utensils, after cleaning are transported or stored on metal racks or in clean cases elevated above the floor. Containers shall be stored inverted on racks or in cases constructed of relatively nonabsorbent, corrosion-resistant, nontoxic materials, or otherwise protected from contamination. (4-8-94)

b. Floors are not flushed or washed when crates of clean bottles are stacked on them. (4-8-94)

214. STORAGE OF SINGLE-SERVICE CONTAINERS, UTENSILS AND MATERIALS.

01. Requirements. Single-service caps, cap stock, parchment paper, containers, gaskets, and other single-service articles for use in contact with retail raw milk and retail raw milk products shall be purchased and stored in sanitary tubes, wrappings, or cartons; shall be kept therein in a clean, dry place a minimum of four (4) inches above the floor until used; and shall be handled in a sanitary manner. (4-8-94)

02. Public Health Reason. Soiled or contaminated caps, parchment paper, gaskets, and single-service containers nullify the benefits of the safeguards prescribed throughout the ordinance. Packing the caps in tubes which remain unbroken until they are placed in the bottling machine is the best method of assuring cap cleanliness. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. Single-service caps, cap stock, parchment paper, containers, gaskets, and other single-service articles for use in contact with retail raw milk and retail raw milk products are purchased and stored in sanitary tubes,

wrappings, or cartons are kept in a clean dry place until used and are handled in a sanitary manner. (4-8-94)

b. Paperboard shipping containers used to encase plastic bags or unfilled containers are used only once unless other methods are employed to protect the containers from contamination. (4-8-94)

c. Tubes or cartons are not refilled with spilled caps, gaskets, or parchment papers. (4-8-94)

d. Cartons or boxes from which contents have been partially removed are kept closed. (4-8-94)

e. Suitable cabinets are provided for storage of tubes after removal from the large outer box, and for storage of opened cartons, unless other satisfactory means are employed to protect the caps, closures, or containers. (4-8-94)

215. -- 216. (RESERVED).

217. COOLING OF MILK.

01. Requirements. All raw milk shall be maintained at forty degrees Fahrenheit or five degrees Centigrade (40F or 5C) or less until packaged. All retail raw milk and retail raw milk products shall be stored at a temperature of forty degrees Fahrenheit or five degrees Centigrade (40F or 5C) or less. On delivery vehicles, the temperature of retail raw milk and retail raw milk products shall not exceed forty-five degrees Fahrenheit or seven degrees Centigrade (45F or 7C). Every room or tank in which retail raw milk or retail raw milk products are stored shall be equipped with an accurate thermometer. (4-8-94)

02. Public Health Reason. When milk is not cooled within a reasonable time after it is produced, its bacterial content will be materially increased. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. All raw milk is maintained at forty degrees Fahrenheit or five degrees Centigrade (40F or 5C) or less until packaged. (4-8-94)

b. All retail raw milk and retail raw milk products shall be stored at a temperature of forty degrees Fahrenheit or five degrees Centigrade (40F or 5C) or less. On delivery vehicles the temperature of retail raw milk and retail raw milk products shall not exceed forty-five degrees Fahrenheit or seven degrees Centigrade (45F or 7C). (4-8-94)

c. Each refrigerator room in which retail raw milk or retail raw milk products are stored is equipped with an indicating thermometer. Such thermometer shall be located in the warmest zone of the refrigerator room. (4-8-94)

d. Each storage tank shall be equipped with an indicating thermometer the sensor of which shall be located to permit the registering of the temperature of the contents when the tank contains no more than twenty percent (20%) of its calibrated capacity. (4-8-94)

e. All surface coolers comply with the following specifications: The sections of open-surface coolers shall be so installed as to leave a gap of at least one-fourth (1/4 or .25) inch between the header sections to permit easy cleaning. Where header ends are not completely enclosed within the cooler covers, condensation or leakage from the headers shall be prevented from entering the retail raw milk or retail raw milk products by so shaping the exposed header faces, above and below all gaps, that condensation is directed away from the tubes, and by using deflectors at the bottom of the headers, or by shortening the bottom of the headers, or by shortening the bottom trough, or by some other approved method. The location of supports of cooler sections shall prevent drip from entering the retail raw milk or retail raw milk products. All open-surface coolers shall be provided with tight-fitting shields which protect the retail raw milk and retail raw milk products from contamination by flies, dust, drip, splash, or manual contact. (4-8-94)

f. Recirculated cold water which is used in coolers and exchangers, including those systems in which a freezing point depressant is used, is from a safe source and protected from contamination. Such water shall be tested semiannually and shall comply with the coliform standards of less than 1/100 ml. by the membrane filter technique or 2.2/100 ml. by the multiple tube fermentation technique. Recirculated water systems which become contaminated through repair work or otherwise shall be properly treated and tested before being returned to use. Freezing point depressants, when used in recirculating systems, shall be nontoxic. (4-8-94)

218. BOTTLING AND PACKAGING.

01. Requirements. Bottling and packaging of retail raw milk and retail raw milk products shall be done on the premises where produced in approved mechanical equipment. (4-8-94)

02. Public Health Reason. Manual bottling or packaging is very apt to result in the exposure of the raw milk or raw milk products to contamination. The transfer of milk from the place of production to another plant for bottling subjects the product to unnecessary risks of contamination. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. All retail raw milk and retail raw milk products are bottled and packaged on the premises where produced. (4-8-94)

b. All bottling or packaging is done on approved mechanical equipment. The term "approved mechanical equipment" shall not be interpreted to exclude manually operated machinery but is interpreted to exclude methods in which the bottling and capping devices are not integral in one system. (4-8-94)

c. Bottling or packaging machines are designed to minimize the need for adjustment during operation. All pipes, connections, defoaming devices, and similar appurtenances shall comply with Sections 210 and 211. (4-8-94)

d. Bottling or packaging machine supply tanks and bowls have covers which are constructed to prevent any contamination from reaching the inside of the filler tank or bowl. All covers shall be in place during operation. (4-8-94)

e. A drip deflector is installed on each filler valve. Such drip deflector shall be designed and adjusted to divert condensation away from the open container. (4-8-94)

f. Container infeed conveyors to automatic bottling or packaging machines have adequate overhead shields to protect the bottles or packages from contamination. (4-8-94)

g. Container fabricating materials, such as paper stock, foil, wax, plastic, etc., are handled in a sanitary manner and protected against undue exposure during the package assembly operation. (4-8-94)

h. Bottling and packaging machine floats are designed to be adjustable without removing the cover. (4-8-94)

i. The filler pipe of all bottling and packaging machines have an apron or other approved device as close to the filler bowl as possible to prevent condensation or drip from reaching the inside of the filler bowl. (4-8-94)

j. Filling cylinders on packaging machines are protected from contamination by the use of overhead shields. When any lubricant is applied to the filler pistons, cylinders, or other milk-contact surfaces, the lubricant shall be nontoxic, sterile, and shall be sparingly applied in a sanitary manner. (4-8-94)

219. CAPPING.

01. Requirements. Capping or closing of retail raw milk and retail raw milk product containers shall be done in a sanitary manner by approved mechanical capping or closing equipment. The cap or closure shall be

designed and applied in such a manner that the pouring lip is protected to at least its largest diameter and, with regard to fluid product containers, removal cannot be made without detection. (4-8-94)

02. Public Health Reason. Hand-capping exposes the milk to contamination. A cover extending over the pouring lip of the container protects it from contamination during subsequent handling, and prevents the sucking back into the bottle, by temperature contraction, of any contaminated liquid on the cap, including milk which has been forced out by temperature expansion and which may have become contaminated. Caps or closures that are applied in such a manner that they cannot be removed without detection help to assure the consumer that the milk and milk product have not been contaminated after packaging. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. The capping or closing of retail raw milk and retail raw milk product containers is done in a sanitary manner on approved mechanical capping/closing equipment. The term "approved mechanical capping or closing equipment" shall not exclude manually operated machinery. Hand-capping shall be prohibited. (4-8-94)

b. All mechanical capping or closure mechanisms are designed to minimize the need for adjustment during operation. (4-8-94)

c. All milk from bottles and packages which have been imperfectly capped or closed is discarded. (4-8-94)

d. All caps and closures are designed and applied in such 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. Single-service containers are so constructed that the product and the pouring and opening areas are protected from contamination during handling, storage and when the containers are initially opened. (4-8-94)

e. Caps and closures are handled in a sanitary manner. The first cap from each tube, the first cap(s) from each roll of cap or cover stock, and the first sheet of parchment or cover paper shall be discarded. The subsequent use of loose caps which are left in the cappers at the end of an operating period after removal from the cap tubes shall be a violation of this item. (4-8-94)

220. PERSONNEL -- CLEANLINESS.

01. Requirements. 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 hands. All persons, while engaged in the processing, handling, storage, or transportation of milk, milk products, containers, equipment, and utensils shall wear clean outer garments. All persons, while engaged in the processing of retail raw milk or retail raw milk products shall wear adequate hair coverings and shall not use tobacco. (4-8-94)

02. Public Health Reason. Clean clothing and clean hands, including clean fingernails, reduce the possibility of milk, milk products, containers, and equipment becoming contaminated. (4-8-94)

03. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. Hands are thoroughly washed before commencing plant functions and as often as may be required to remove soil and contamination. (4-8-94)

b. Each employee washes his hands following a visit to the toilet room and prior to resuming work. (4-8-94)

c. All persons while engaged in the processing, handling, storage, or transportation of retail raw milk, retail raw milk products, containers, equipment, and utensils wear clean outer garments. (4-8-94)

d. Tobacco is not used by any person while engaged in the processing of retail raw milk or retail raw milk products and adequate head coverings are worn. (4-8-94)

221. -- 299. (RESERVED).

300. ANIMAL HEALTH.

01. Requirements - Tuberculosis. All retail raw milk shall be from cows which have been accredited as tuberculosis free or shall have passed an annual tuberculosis test. (4-8-94)

02. Requirements - Brucellosis. All retail raw milk shall be from herds under a brucellosis eradication program using the milk ring testing program which is conducted at least twelve (12) times per year at approximately equal intervals, and all herds with positive milk ring results shall have the entire herd blood tested within two (2) days from the date of the laboratory ring tests. (4-8-94)

03. Requirements - Other Diseases. For diseases other than brucellosis and tuberculosis, the regulatory agency shall require such physical, chemical, or 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 such test(s) shall be disposed of as the regulatory agency directs. (4-8-94)

04. Public Health Reason. The health of the cow is a very important consideration, because a number of diseases of cattle, including tuberculosis, brucellosis, Q-fever, salmonellosis, staphylococcc infection, and streptococcc infection, may be transmitted to man through the medium of milk. The organisms of most of these diseases may get into the milk either directly from the udder, or indirectly through infected body discharges which may drop, splash, or be blown into the milk. The great reduction in the incidence of bovine tuberculosis in man indicates that the practice of good sanitation in animal husbandry, the testing of cattle and removal of the reactors from the herds, and the pasteurization of milk, have been effective in the control of this disease. The reservoir of bovine tuberculosis still exists, however; hence, constant vigilance against this disease must be continued by industry and health agencies. (4-8-94)

05. Administrative Procedures. This item is deemed to be satisfied when: (4-8-94)

a. Any cow from which retail raw milk is to be sold shall have been tested for tuberculosis within thirty (30) days prior to offering milk for sale and retested annually thereafter. (4-8-94)

b. Any cow to be added to the milking herd, including heifers born and raised on the dairy premises, shall be tested for tuberculosis within thirty (30) days before milk from such cow is offered for sale. (4-8-94)

c. All tuberculin tests and retests shall be made, and any reactors disposed of, as approved by the U.S. Department of Agriculture at the time of the adoption of these rules. (4-8-94)

d. A letter or a certificate identifying the animals tested, the date of injection, the date of reading of the test, and the results of the test signed by a U.S. Department of Agriculture accredited veterinarian, shall be evidence of compliance with the above requirements and shall be filed with the regulatory agency. (4-8-94)

e. Any cow from which retail raw milk is to be sold shall have shown negative (obtain Bureau of Animal Industry advice on vaccinated suspects) to the official blood test for brucellosis within thirty (30) days prior to the date such raw milk is offered for sale. (4-8-94)

f. Any cow that is added to the milking herd shall have shown negative to the official blood test for brucellosis within thirty (30) days prior to the date retail raw milk from such cow is offered for sale. (4-8-94)

g. The milk from every herd of cows producing milk to be sold as retail raw milk shall be tested at least twelve (12) times each year with the brucella ring test. If any such brucella ring test is suspicious for brucellosis, then within two (2) days each cow in the herd shall be tested with the blood test. (4-8-94)

h. All brucellosis tests, retests, disposal of reactors, vaccination of calves and certification of herds and areas shall be in accordance with brucellosis eradication "Recommended Uniform Methods and Rules", as approved by the U.S. Department of Agriculture. All reactors disclosed on blood agglutination tests shall be

