

(9) MILKING. (a) Flanks, bellies and tails of cows shall be free from visible dirt at the time of milking. The udder and teats shall be wiped immediately before milking with a single service towel, or a clean cloth, dipped in an effective sanitizing solution. Washing or spraying may be substituted if udder and teats are wiped dry with a single service towel, or a clean cloth. Milking machine teat cups and inflations shall be dipped in an effective sanitizing solution between the milking of each individual cow. Milkers' hands shall be washed immediately before milking and kept clean during the milking process. Wet-hand milking is prohibited. Milk stools and surcingles shall be kept clean and stored in a clean place.

(b) Abnormal milk shall be kept out of the milk supply. Milk from cows treated with antibiotics shall be excluded for such period of time as necessary to keep the milk supply free from antibiotics. No dusty or objectionably strong-flavored feeds shall be fed to cows just before or during milking.

(10) STRAINING. Milk may be strained only through a clean, single-service filter.

(11) COOLING. Milk and cream shall be cooled immediately after milking or separating to 50° F. or lower, unless it is delivered to the plant within 2 hours after milking or separating.

(12) MILK HOUSE. (a) Producers of milk or cream shall have a milk house or milk room in which the cooling and storing of milk and cream and the cleaning, sanitizing and storing of milk containers and utensils shall be done. Such house or room shall not be used for any purpose likely to result in contamination. It shall be equipped with a cooling tank or cooling equipment and utensil cleaning, sanitizing and storage facilities. Utensils shall be inverted separately (not nested) on a rack. The bottom bars of the rack shall be high enough to avoid contamination from below. Any type or design of tank or equipment for cooling which can be kept clean and sanitary may be used. The milk house or milk room shall be of construction which permits easy cleaning and have adequate drainage. The floor shall be of concrete or other impervious material. It may be a part of the barn or another building, but shall be partitioned, ceiled and screened to prevent the entrance of dust, dirt, flies and other pests or contamination. Outer doors shall open outward and be self-closing, unless other effective means are provided to prevent entrance of flies. There shall be ample light and adequate ventilation.

(b) When a bulk tank is used for holding and cooling milk, it shall be installed in the milk house or milk room. Such house or room shall have a trapped floor drain. The tank shall not be located over the floor drain or under a ventilator. It shall have at least 24 inches clearance at the milk outlet side, at least 18 inches clearance at two other sides, and a clearance at the bottom of at least 6 inches for flat-bottom tanks and 4 inches for round-bottom tanks; provided, that non-conforming tank installations made prior to January 1, 1961 may be approved by the department, in writing, if the tanks can be effectively cleaned and sanitized. A port opening for milk-conducting equipment, not more than 6 inches in diameter, shall be in an outside wall, and an exterior apron of concrete or other impervious material, not less than 4 feet by 4 feet in size, shall be adjacent to the wall and

centered on the opening. The base of the opening shall be at least 6 inches above the apron and the floor of the milk house or room. The opening shall have a tight-fitting cover which is self-closing. The milk house or milk room shall have a pressure water supply and a water heater of not less than 30-gallon capacity. When a cleaned-in-place stationary pipeline is used, the capacity of the water heater shall be at least 50 gallons if the length of the pipeline is not over 100 feet, 60 gallons if over 100 feet but not over 200 feet, and 80 gallons if over 200 feet.

(13) **FARM BULK TANKS.** Bulk tanks used for holding and cooling milk at farms shall conform to the following sanitary standards of construction and cooling:

(a) *Construction.* The tank shall be self-draining. Its lining and other parts having contact with milk or having surfaces from which milk may drain or drop into the tank shall be made of stainless steel or other material that is smooth, non-toxic, relatively stable, relatively non-absorbent, corrosion-resistant, and capable of withstanding cleaning and bactericidal treatment. Milk contact surfaces shall be visible and easily accessible. Openings shall have covers which are self-draining. Openings and covers shall be constructed and installed so as to prevent drainage into the milk compartment. Each tank shall have an indicating thermometer, with a minimum range of 32° F. to 80° F., and a mechanical agitator which will insure homogeneity of the milk within 5 minutes of operation.

(b) *Cooling.* Tanks shall be capable of cooling milk from the first milking to 50° F. within one hour and of preventing the blend temperature from rising above 50° F. at any time during the addition of subsequent milkings.

*Note:* Tanks which conform to the "3-A Sanitary Standards" published by the International Association of Milk and Food Sanitarians, Inc. in the Journal of Milk and Food Technology will meet the requirements of this section.

**History:** Cr. Register, December, 1960, No. 60, eff. 1-1-61; renum. (1) to be (1) (a); cr. (1) (b); am. (12) (a), Register, July, 1967, No. 139, eff. 8-1-67; renum. (9) to be (9) (a) and am.; cr. (9) (b), Register, May, 1968, No. 149, eff. 6-1-68; am. (11), Register, February, 1971, No. 182, eff. 3-1-71.

### Procurement

**Ag 30.04 Warning notice.** No producer, after receiving written notice from the department specifying insanitary conditions disclosed by an inspection of his farm premises and that the milk or cream therefrom is of undergrade sanitary quality or is otherwise insanitary, shall continue to sell or deliver milk or cream to any plant unless the insanitary conditions have been corrected by such producer and the milk or cream is not of undergrade sanitary quality.

**History:** Cr. Register, December, 1960, No. 60, eff. 1-1-61.

**Ag 30.05 Identification of adulterated milk.** The department will identify any adulterated or insanitary milk or cream by tagging the containers thereof and adding thereto a harmless, red food color to prevent its being used for human food. The plant operator shall identify any adulterated or insanitary milk or cream which it finds by tagging the container thereof.

**History:** Cr. Register, December, 1960, No. 60, eff. 1-1-61.

**Ag 30.06 Transportation.** (1) Persons engaged in the business of hauling milk or cream in cans to plants shall use vehicles having

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on all working surfaces; at least 30 foot-candles of light intensity in areas where products are examined for condition and quality; and at least 5 foot-candles of light in other rooms, when measured from a distance of 30 inches above the floor. Light bulbs and fluorescent tubing near processing or packaging operations shall have protective covers or shields.

(5) **ROOMS.** Dairy plants which are constructed after January 1, 1961 shall have a separate room for receiving milk or cream. Cooling and freezing rooms shall be equipped with facilities for maintaining any temperature and humidity conditions prescribed for products held therein. Boiler and tool rooms shall be separated from rooms where products are processed, manufactured, packaged or handled. Not later than January 1, 1963 each plant shall have a toilet and dressing room conveniently located therein. Such room shall be equipped with a flush-type toilet and shall be ventilated by openings to the outer air. Doors of toilet rooms shall be self-closing and shall not open directly into any room in which products or ingredients are processed, packaged or stored. Hand-washing facilities, including warm running water, soap or other detergents, and clean towels or air driers, shall be located in or adjacent to the toilet and dressing room, and at other places in the plant if essential to the cleanliness of personnel handling products. Containers shall be provided for used towels and other wastes. A legible sign shall be posted conspicuously in each toilet and dressing room directing employees to wash their hands before returning to work.

**History:** Cr. Register, December, 1960, No. 60, eff. 1-1-61; am. (5), Register, March, 1962, No. 75, eff. 4-1-62.

**Ag 30.13 Facilities.** (1) **WATER SUPPLY.** (a) There shall be an ample supply of warm water of safe quality with adequate facilities for its distribution throughout the plant. Water from other sources may be used for boiler feed water and condensing water, provided such water lines are completely separated from the water lines carrying the sanitary water supply and the equipment is so constructed and controlled as to prevent contamination of any product or product contact surface. There shall be no cross-connection between potable water lines and other water lines. Bacteriological examination shall be made of the potable water supply at least once a year to determine potability. Tests for potability shall be made by a laboratory certified by the State Board of Health. The results of water tests shall be kept on file and readily accessible for at least 12 months. The location, construction and operation of any well shall comply with the Wisconsin well code. Tests shall be made whenever there is a change in the water system which may contaminate the water supply.

(2) **WASTE DISPOSAL.** Waste shall be disposed of from the plant and premises by means of a sewage system which shall have sufficient slope and capacity to readily remove all waste from the various processing operations. Waste paper shall be hauled away or burned in an incinerator at the plant. Containers used for the collection and holding of wastes shall be constructed of metal or other impervious material, kept covered with tight-fitting lids and placed outside the plant. Solid wastes shall be disposed of regularly and the containers cleaned before reuse.

**History:** Cr. Register, December, 1960, No. 60, eff. 1-1-61.

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**Ag 30.14 Equipment.** (1) **CONSTRUCTION AND INSTALLATION.** Equipment and utensils coming in contact with milk, cream or whey cream, including pumps, piping, fittings and connections, shall be constructed of smooth, non-toxic, corrosion-resistant material which can be easily cleaned. Non-metallic parts having contact with such products shall be of material which is resistant to scratching, scoring and distortion and is non-toxic, fat-resistant, relatively inert, relatively non-absorbent and insoluble. Equipment and piping shall be designed and installed so as to be easily accessible for cleaning, and shall be kept in good repair, free from cracks and corroded surfaces. Equipment installed after January 1, 1961 shall be located at least 24 inches from any wall or piece of equipment which is more than 48 inches long, but this shall not apply to storage tanks when the face of the tank extends through the wall into the processing room. Interior surfaces of equipment, pipes or fittings, including valves and connections, shall be accessible for inspection, except cleaned-in-place sanitary piping and equipment. Milk pumps shall be easily dismantled for cleaning. Cleaned-in-place sanitary piping and equipment shall be self-draining.

(2) **VACUUM CLEANER.** Each milk drying plant shall be equipped with a heavy-duty industrial vacuum cleaner. Material picked up by vacuum cleaners, except residual by-products, shall be burned.

*Note:* Equipment which conforms to the "3-A Sanitary Standards" published by the International Association of Milk and Food Sanitarians, Inc. in the Journal of Milk and Food Technology will meet the requirements of this section.

**History:** Cr. Register, December, 1960, No. 60, eff. 1-1-61.

**Ag 30.15 Personnel.** (1) **CLEANLINESS.** Persons who work in a plant shall wash their hands before beginning work and before returning to work after using toilet facilities, eating, smoking, or otherwise soiling their hands. Expectoration or use of tobacco in any form shall be prohibited in each room and compartment where any unpacked or exposed products are prepared, processed or otherwise handled. Clean, light-colored, washable outer garments and caps or hair nets shall be worn when engaged in receiving, sampling, processing or packaging products.

(2) **HEALTH.** No person afflicted with a communicable disease, or who has a discharging or infected wound, sore or lesion on hands, arms or other exposed portions of the body, shall be permitted in any room or compartment where products are prepared, processed or handled. Prior to employment, employees shall present a medical certificate, issued by a physician on the basis of a physical examination and morbidity history made within 60 days, and setting forth his opinion that the employee is not a carrier of or infected with a communicable disease. An employee returning to work following illness from communicable disease requiring quarantine shall present a certificate from the attending physician to establish proof of complete recovery. Medical certificates shall be kept on file at the plant office.

**History:** Cr. Register, December, 1960, No. 60, eff. 1-1-61.

**Ag 30.16 Processing.** (1) **COOLING.** Temperature of milk shall not exceed 60° F. when delivered to the plant unless it is delivered within 2 hours after milking and the milk shall be cooled at the plant and held at 50° F. or lower unless processed within 2 hours of receipt.

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(2) **PASTEURIZATION.** When pasteurization of a product is required or is represented, it shall be accomplished in equipment which will heat every particle of milk or skim milk to at least 145° F., and cream and other milk products to at least 150° F., and hold them at such temperature continuously for at least 30 minutes; or heat every particle of milk and skim milk to at least 161° F., and cream and other milk products to at least 166° F., and hold them at such temperature continuously for at least 15 seconds; provided, ice cream mix shall be heated to at least 175° F. for at least 25 seconds or to at least 155° F. for at least 30 minutes. This subsection shall not prohibit any other process which is equally effective.

(3) **CLEANING AND BACTERICIDAL TREATMENT.** Equipment not designed to be cleaned in place shall be disassembled daily and thoroughly cleaned and sanitized. No cleansers, detergents, wetting or sanitizing agents, or similar materials, may be used in a manner which will contaminate products. Steel wool or metal sponges shall not be used in cleaning of any equipment or utensils. Equipment designed to be cleaned in place shall be thoroughly rinsed before and after circulation of the cleaning solution. Immediately prior to use, equipment coming in contact with products shall be subjected to an effective bactericidal or sanitizing treatment. Utensils and portable equipment used in processing operations and cleaning shall be stored in clean, dry locations, and in a self-draining position on racks constructed of impervious, corrosion-resistant material. Product contact surfaces of homogenizers, high-pressure pumps and high-pressure lines shall be accessible for cleaning. Milk and cream cans shall be cleaned, subjected to bactericidal treatment and dried before removal from the plant for reuse. Can washers shall be kept free from accumulation of scale.

(4) **WHEY CREAM AND CREAM.** (a) Whey cream, cream and cream from drippings shall be cooled at the plant where received or separated to 40° F. within 2 hours and maintained at that temperature. Whey cream obtained from drippings held for more than 2 hours without cooling as provided in this subsection shall not be offered for sale.

(b) Whey cream shall not be held more than 7 days at the point where separated.

(c) Cream which is separated from whey obtained from milk to which have been added approved chemical agents in amounts that cause the cream to have an unsatisfactory flavor or odor shall not be offered for sale.

(d) The titratable acidity of whey cream shall not exceed 0.20%.

(e) Whey cream shall possess a satisfactory flavor and odor and each individual container shall be examined organoleptically prior to leaving the producing plant. All equipment used in the production of whey cream and cream, except equipment designed to be cleaned in place, shall be thoroughly disassembled and cleaned and sanitized after each usage. All equipment shall bear the 3-A symbol or be of equivalent construction and shall comply with section Ag 30.14.

**History:** Cr. Register, December, 1960, No. 60, eff. 1-1-61; am. (1); cr. (4), Register, February, 1971, No. 182, eff. 3-1-71.

**Ag 30.17 Storage.** Products and ingredients used in their processing shall be stored or arranged in aisles, rows, sections or lots in

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such a manner as to be orderly and easily accessible for inspection, and to permit adequate cleaning of the room. No products shall be placed directly on wet floors or exposed to foreign substances, odors or conditions, such as drippage or condensation, which might cause package or product damage or contamination. Insecticides, rodenticides and other toxic materials shall be kept in their original containers and stored in a separate room or cabinet away from products, ingredients and packaging supplies.

**History:** Cr. Register, December, 1960, No. 60, eff. 1-1-61.

**Ag 30.18 Frozen desserts; sanitary quality.** Sanitary procedures in the processing, handling and storing of ice cream, ice milk, sherbet, ices and other similar frozen desserts shall be such that the finished product shall have a bacterial plate count not to exceed 50,000 per gram and a coliform count not to exceed 10 per gram. Samples of frozen desserts, used to determine compliance with bacteriological requirements, shall be obtained from supplies owned by or in the possession of the plant operator.

**History:** Cr. Register, December, 1960, No. 60, eff. 1-1-61; am. Register, November, 1963, No. 95, eff. 12-1-63.