Chapter Ag 30

MINIMUM STANDARDS FOR MANUFACTURING MILK

History: Chapter Ag 30 entitled "Milk Production, Minimum Standards," (1–2–56, and subsequently amended) was repealed, Register, December, 1960, eff. 1–1–61.

Note: Minimum standards for Grade A milk and milk products are issued under the authority of section 97.046, Wis. Stats., and are set forth in chapter Ag 80

Ag 30.01 Definitions. As used herein, unless the context otherwise requires:

(1) "Department" means the State Department of Agriculture.

(2) "Plant" means a dairy plant defined in section 97.04, Wis. Stats., but shall not include a Grade A dairy plant.

(3) "Product" means a dairy product defined in section 97.04, Wis. Stats.

(4) "Producer" means any person who owns or controls one or more cows from which he sells milk or cream, other than Grade A milk shipped to a Grade A dairy plant.

(5) "Person" and "operator" include corporations.

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

Production

Ag 30.02 Farm inspection. Every plant operator, prior to receiving milk or cream from any producer, shall inspect the farm premises of the producer. Thereafter, such inspection shall be made at least once each year and more frequently as necessity is indicated by the results of the tests used to determine the sanitary quality of milk or cream. Inspection of the producer's premises shall include checking to determine compliance with each of the farm sanitary requirements prescribed in section Ag 30.03. After each such inspection a copy of an accurately completed inspection report shall be furnished to the producer and he shall promptly correct conditions which fail to comply with requirements herein. Such reports shall be kept posted in a conspicuous place in the milk house. No producer shall sell or deliver milk or cream to a plant operator after he has refused him access for the purpose of inspecting his farm premises at any reasonable time.

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

Ag 30.03 Farm sanitary requirements. (1) (a) Cows. Milk and cream offered for sale shall be from clean, healthy cows.

(b) Milk from a herd infected with mastitis and found to be insanitary and adulterated as provided under Wis. Adm. Code chapter Ag 10 is abnormal milk and shall be rejected as provided in section Ag 30.04.

(2) PERSONNEL. Only clean and healthy persons shall be permitted to milk the cows and to handle the milk or milk utensils.

(3) DAIRY BARNS. (a) Floors and gutters of dairy barns where cows are milked shall be constructed of concrete or other impervious material. They shall be kept clean and in good repair. Walls and ceilings shall be kept clean and in good repair, and shall be whitewashed or painted as often as necessary to keep them in a sanitary condition. The barn where milking cows are kept or milked shall have adequate light and ventilation, and be so arranged as to avoid overcrowding. No swine, sheep, goats or fowl shall be permitted in the milking stable. Manure shall be removed daily from the milking stable and disposed of in such a manner as to be inaccessible to the milking herd.

(b) Loose-cow housing areas shall be so managed that manure, soiled bedding and waste feed are not stored therein or permitted to accumulate so as to cause the soiling of the cows' udders and flanks. The resting area shall be bedded and maintained in such manner that the manure pack is properly drained and that it provides reasonably firm footing for the animals. It shall be of sufficient size to provide at least 75 square feet per cow. The feeding area shall be separate from the bedded area and shall be paved. It shall be kept free from accumulated manure and waste. Accumulated manure shall be completely removed from the resting area before the start of the fly season and it shall be kept free from accumulated manure during the fly season.

(4) COW YARD. The cow yard shall be graded so as to be free of standing pools of water. It shall be kept free from accumulations of manure. Swine shall not be permitted in the cow yard.

(5) TOILETS. Toilets on every dairy farm shall be of a sanitary type, so constructed and maintained that waste is inaccessible to flies and rodents and does not pollute the surface soil or contaminate the water supply.

(6) INSECTS AND RODENTS. The premises shall be maintained and the product and equipment handled so as to prevent contamination by insects or rodents.

(7) WATER SUPPLY. An adequate supply of safe, clean water shall be provided for the cleaning of dairy utensils and equipment.

(8) MILK UTENSILS AND EQUIPMENT. (a) *Construction.* Milk utensils and equipment used in the handling, storage and transportation of milk or cream shall be made of smooth, relatively non-absorbent material, and seams shall be soldered flush so as to be easily cleaned. They shall be kept in good repair. No galvanized or enamel ware utensils shall be used.

(b) *Cleaning.* Milk utensils and milk contact surfaces of equipment shall be rinsed with lukewarm water immediately after usage, then brushwashed with hot water containing an effective detergent and thoroughly rinsed. Before use they shall be sanitized with a safe, effective bactericide. Farm bulk tanks shall be similarly cleaned and sanitized. Other equally effective cleaning and sanitizing methods may be used.

(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.

(14) MILKING AND MILK HANDLING EQUIPMENT. (a) All milking and milk handling systems and equipment hereafter installed, reconstructed or extensively altered for use in the milking of cows and the transfer of the milk from the cow to containers, in which or from which the milk is removed from the dairy farm, shall conform to the following standards of construction and installation:

1. All product contact surfaces of permanently mounted pipelines shall be of stainless steel or heat resistant glass, except that rubber, rubber-like, or plastic materials may be used for sealing applications. Paper gaskets shall not be used.

2. All joints of permanently mounted pipelines, including solution lines, shall be welded or equipped with CIP (clean-in-place) fittings. Welded joints shall be smooth and free from pits, cracks or other defects. Demountable fittings shall be of such design as to form substantially flush interior joints. Appurtenances, such as milker claws, pumps or receiver jars with product contact surfaces, shall be readily cleanable, either when assembled or disassembled. Removable parts shall be readily demountable. Non-product contact surfaces shall have a smooth finish and be readily cleanable.

3. Permanently mounted pipelines shall be supported so that they remain in constant alignment and position. They shall be self-draining with a minimum slope of one inch per 10 feet. The support system shall be so designed as to preclude electrolytic action between supports and pipeline.

4. Transparent plastic tubing used in conjunction with transfer

stations or systems shall be in one continous length and be supported off the floor at all times. The opening through which tygon tubing enters the milk room shall be provided with a closure which is to be kept closed when the transfer unit is not in use. Equipment for mechanically air drying the tygon tubing shall be provided. The pouring station receptacle shall be of smooth stainless steel and be equipped with an overlapping self-closing cover. The receptacle shall be mounted off the floor on a readily cleanable stainless steel framework and be washed and stored in the milk room. Wire mesh or materials which are not readily cleanable may not be used as a support for the filter medium.

5. The claw or milk cup shall be designed so that cleaning and sanitizing solutions will drain when the claw or milk cup is in the cleaning and sanitizing position.

6. A bucket type milking machine shall be provided with a check valve or other device which will prevent moisture or any contaminating substance from entering the milk from the vacuum system. The movable portion of the check valve shall be of one piece construction or the parts shall be bonded together.

(b) Department approval is not required prior to the installation, reconstruction or alteration of milking or milk handling systems and equipment, except that upon completion of the installation, the installer shall furnish the purchaser with a signed written statement certifying that the equipment as installed is in full compliance with this subsection.

Note: Tanks which conform to the "3-A Sanitary Standards" and milking and milk handling equipment which conform to the "3-A Accepted Practices for the Design, Fabrication and Installation of Milking and Milk Handling Equipment", published by the International Association of Milk, Food and Environmental 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; cr. (14), Register, December, 1972, No. 204, eff. 1-1-73.

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 container thereof and adding thereto a harmless food color to prevent its being used as human food. The plant operator shall identify 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; am. Register, March, 1977, No. 255, eff. 4-1-77.

Ag 30.06 Transportation. (1) Persons engaged in the business of hauling milk or cream in cans to plants shall use vehicles having attached covered van bodies; except a substitute vehicle, wherein the product is covered, may be used during the period that a temporary gross weight restriction is imposed for any highway which must be used to obtain the milk or cream. Nothing which may contaminate the milk or cream shall be hauled with the milk, cream or containers therefor. When skim milk, buttermilk or whey is being transported to the producers in the same vehicle used to transport milk or cream, the skim milk, buttermilk or whey shall be contained in a tank outside of the milk enclosure or in a sealed tank within the enclosure. Such sealed tank shall have exterior inlets and outlets. Cans used for the transportation of milk or cream shall not be used for the transportation of skim milk, buttermilk or whey to producers. No person transporting milk or cream shall unload any of the cans of such milk or cream, or any part thereof, at any place other than a plant unless such unloading point is enclosed to protect the milk or cream from extreme heat or cold and from dust or other contamination.

(2) Truck transport tanks, including sanitary piping, fittings and pumps, shall be cleaned and subjected to bactericidal treatment at least once each day. If the tank is not to be used immediately for the pick-up of another load of milk, it shall be washed promptly and given bactericidal treatment prior to use. The outside of the tank truck shall be maintained in a clean condition. Outside fittings and openings shall have metal dust covers. Effective January 1, 1963, tanks shall be cleaned in an enclosed heated room having an impervious, drained floor, equipped with warm water under pressure.

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

Ag 30.07 Bacteriological and sediment testing. (1) Every plant operator shall examine by sight and smell all milk and cream received by him. Bacteriological and sediment tests to determine the sanitary quality of such milk or cream shall be conducted at least once each month. Test results of all tests made of a producer's milk or cream shall be furnished the producer within 30 days after the test is completed. Prior to receiving a producer's first delivery the plant operator shall conduct bacteriological and sediment tests of his milk or cream, unless such producer has furnished a copy of his test records for the past 90 days from another plant, as required by section Ag 30.10 (2), showing that his milk or cream was not of undergrade sanitary quality during such 90-day period. Screening tests for the detection of mastitis may be conducted at any time and results reported to the producer if evidence of abnormal milk is found.

(2) Bacteriological tests may be the resazurin, bacterial plate count or direct microscopic clump count tests. The milk or cream is of undergrade sanitary quality:

(a) If the resazurin test discloses any samples which are pink or white at the end of 1 hour's incubation; or

(b) If the bacterial plate count or direct microscopic clump count tests disclose any sample having a bacterial count in excess of 2,000,000 per milliliter.

(3) (a) Sediment tests to determine the sanitary quality of milk or cream in cans shall be conducted by drawing the head of the tester

across the bottom of the can, simultaneously with the upstroke of the plunger. The tester shall be an off-bottom type of one pint capacity. If any can of milk or cream is found to be of undergrade sanitary quality, every can of the producer's milk or cream shall be

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tested. Farm bulk tank milk shall be tested by the mixed sample method.

(b) The milk or cream is of undergrade sanitary quality whenever the wet sediment disc shows sediment in excess of that in a number 3 disc on a sediment grading chart which shows the following standard sediment discs:

A number 1 disc with no sediment.
A number 2 disc with 0.5 milligram of sediment.
A number 3 disc with 2.5 milligrams of sediment.

When one-pint samples from farm bulk tanks are used for testing by the mixed sample method, the number 2 and 3 standard sediment discs shown on the chart shall contain ⅛ of the sediment prescribed above.

History: Cr. Register, December, 1960, No. 60, eff. 1–1–61; am. (1) Register, May, 1968, No. 149, eff. 6–1–68; am. (2) (intro. par.), r. (2) (a) and renum. (2) (b) and (c) to be (2) (a) and (b), Register, December, 1972, No. 204, eff. 1–1–73.

Ag 30.08 Notice and rejection; test samples. (1) Milk or cream which is found to be watery, flaky, stringy, bloody, thick, gargety or otherwise adulterated or insanitary shall be rejected by the plant operator.

(2) (a) Whenever the milk or cream of any producer has been subjected to a bacteriological test and is of undergrade sanitary quality, the plant operator shall promptly notify the producer and within 5 days shall conduct another such test on milk or cream received from the producer. If the milk or cream of any producer is found to be of undergrade sanitary quality on 3 consecutive bacteriological tests, conducted at intervals of not more than 5 days, the plant operator shall reject further deliveries of milk or cream from such producer until a bacteriological test discloses that his milk or cream is of sanitary quality; provided, if an inspection of his farm by the plant operator discloses no insanitary conditions, the next delivery may be accepted before such producer's milk or cream is rejected as required herein.

(b) When the milk or cream of any producer has been tested for sediment and found of undergrade sanitary quality, the plant operator shall promptly notify the producer and shall reject such milk or cream and any further deliveries from such producer until a sediment test discloses that his milk or cream is of sanitary quality; provided, if the producer's milk or cream is delivered in bulk commingled with that of other producers, the next delivery may be accepted before his milk or cream is rejected as required herein.

(3) Every plant operator shall warn each producer by notice in writing as to the sanitary quality of his milk or cream if:

(a) The resazurin test discloses any samples which are mauve (lavender) to purplish pink at the end of 1 hour's incubation.

(b) The bacterial plate count or direct microscopic clump count tests disclose any sample having a bacterial count of more than 200,000 per milliliter but not more than 2,000,000 per milliliter.

(c) The sediment test discloses sediment in excess of the number 2 standard sediment disc.

(4) Upon written notice from the department that the milk or cream of a producer is of undergrade sanitary quality, the plant operator shall reject milk or cream received from such producer until bacteriological and sediment tests disclose that it is not of undergrade sanitary quality.

(5) Dairy plants, on reasonable notice from the department, shall collect and furnish to the department fresh milk samples of milk received from individual producers. Samples may be requested once every 4 months or more often as the department considers necessary for animal health and milk quality testing and examination. All samples shall be identified with the patron number and date of collection and shall be kept under refrigeration or ice at a temperature below 40° F. until they are transferred to department inspectors.

History: Cr. Register, December, 1960, No. 60, eff. 1–1–61; cr. (5), Register, May, 1968, No. 149, eff. 6–1–68; r. (3) (a), and renum. (b) (c) (d) to be (3) (a), (b) and (c), Register, December, 1972, No. 204, eff. 1–1–73.

Ag 30.09 Test methods, standard. The procedures for performing sanitary tests, except where otherwise prescribed, shall be those in the book "Standard Methods for the Examination of Dairy Products", Twelfth Edition (1967), copies of which are on file at the offices of the department of agriculture, secretary of state and revisor of statutes, and may be obtained from American Public Health Association, Inc., 1790 Broadway, New York, N. Y. 10019.

History: Cr. Register, December, 1960, No. 60, eff. 1–1–61; am. Register, December, 1972, No. 204, eff. 1–1–73.

Ag 30.10 Records, reports. (1) Every plant operator shall keep for at least one year a record for each producer showing the results of farm inspections, the dates and results of all bacteriological and sediment tests, and the date and quantity of any insanitary or adulterated milk received from such producer. The plant operator shall furnish or forward a copy of such record to the producer or his authorized agent within 24 hours after receipt of his written request. Such record may be used by the producer as evidence of his 90-day milk quality and farm inspection record for purposes of milk transfer as provided in subsection (2).

(2) Before a producer transfers his milk or cream from one plant to another, he shall first furnish the operator of the plant to which the milk is being transferred with a copy of all farm inspection and milk quality records received by him for milk produced during the past 90 days, or if such records are not available, with a copy of records obtained from the plant last receiving his milk as provided in subsection (1). No milk may be transferred without such records unless the producer certifies in writing that he received no records within the past 90 days or is unable to furnish them, and that he has made a request for such records as provided in subsection (1) and the plant operator has failed or refused to furnish or forward them within the time allowed. Any failure or refusal of the plant operator to furnish or forward such records within the time allowed shall be reported to the department by the operator of the plant to which the milk is being transferred. The 90-day farm inspection and milk quality record, along with other tests and inspections conducted prior to receiving a producer's milk, shall be used in determining acceptability of a producer's milk for transfer.

(3) No plant operator shall accept the milk or cream of a producer transferring from another plant until he has: (a) received a copy of his 90-day farm inspection and milk quality record or a statement of non-availability as provided in subsection (2); (b) completed a

farm inspection as required by section Ag 30.02; and (c) completed bacteriological and sediment tests, as required by section Ag 30.07 (1). Bacteriological and sediment tests shall be conducted whenever milk quality and farm inspection records are not available, or the 90-day record discloses that the milk or cream was of undergrade sanitary quality at any time during the preceding 90-day period.

(4) If unsatisfactory farm conditions are disclosed on the initial farm inspection, no milk or cream may be accepted until a re-inspection discloses the producer is in compliance with farm sanitary requirements of section Ag 30.03. If initial milk quality tests disclose that the milk is of undergrade sanitary quality, no milk or cream may be accepted until a subsequent test discloses that the milk is of acceptable sanitary quality.

History: Cr. Register, December, 1960, No. 60 **eff.** 1-1-61; cr. (c) **and** (d), Register, March, 1962, No. 75, eff. 4-1-62; renum. (1) to be Ag 30.10; r. (2), Register, July, 1967, No. 139, eff. 8-1-67; renum. to be (1) and am.; cr. (2), (3) and (4), Register, May, 1968, No. 149, eff. 6-1-68.

Processing

Ag 30.11 Premises. Plant premises shall be kept in a clean and orderly condition, free from foul odors, smoke, excessive air pollution, and waste materials. Driveways and dirt surfaces in the immediate plant area shall be surfaced or otherwise treated to minimize dust. A drainage system shall be provided to allow rapid drainage of all water from plant buildings, including surface water around the plant or on the premises, in such manner as to prevent a nuisance or health hazard.

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

Ag 30.12 Buildings. (1) GENERAL. Plant buildings shall be of sound, tight construction and shall be kept clean and in good repair. Construction and maintenance shall be such that insects, rodents, vermin, or other animals are excluded.

(2) OUTSIDE OPENINGS. Outside openings of plants, including doors, windows, skylights and transoms, shall be effectively protected or screened against the entrance of insects, birds, rodents and dirt. Outside doors shall be self-closing. Outside conveyor openings and other special-type outside openings shall be effectively protected at all times against the entrance of insects and rodents, by use of doors, screens, flaps, fans or tunnels. Outside openings for sanitary pipelines shall be covered when not in use. Service pipe openings shall be completely cemented or have tight metal collars.

(3) INTERIOR SURFACES. Exposed interior surfaces of rooms in which products are processed or packaged, or in which utensils are washed and stored, shall be smoothly finished with material which is substantially impervious to moisture. Floors of such rooms, when constructed after January 1, 1961, shall be of concrete or other impervious material. They shall be smooth, kept in good repair, and sloped so that there will be no pools of standing water after flushing. Drains shall be equipped with traps and shall be so installed as to prevent any back-up of sewage.

(4) LIGHTING AND VENTILATION. Light and ventilation in the plant shall be adequate to permit maintenance of sanitary conditions. Rooms where products are processed or packaged, or where utensils or equipment are washed, shall have at least 20 foot-candles of light intensity

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.

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. Expectorating 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.

(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

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.