

MILK ORDINANCE AND CODE 1953 RECOMMENDATIONS OF THE PUBLIC HEALTH SERVICE*

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The new edition of the Public Health Service Milk Ordinance and Code represents the first complete revision since 1939. Many significant changes and modifications have been made therein to keep abreast of advances in the fields of dairy technology, veterinary medicine, and public health. Among the most significant changes are strengthening of the provisions relating to brucellosis control in dairy herds; inclusion of methods for the cleaning-in-place of milk plant pipe lines; changes in the requirements for the cooling of milk on dairy farms; and an option that health departments may accept, subject to official check, industry's laboratory results of tests of raw milk for pasteurization. The 1953 Milk Ordinance is a mandatory-pasteurization type; however, a list of the changes to be made to permit the sale of Grade A retail raw milk has been included for those communities unwilling to require compulsory pasteurization. A new feature is the inclusion of a separate Appendix which contains much of the explanatory material formerly scattered throughout the Milk Code.

The 1953 edition† represents the twelfth major revision of the Public Health Service Recommended Milk Ordinance and Code since the Standard Milk Ordinance was first published in 1924. Since the publication of the last previous edition in 1939, the Public Health Service had received numerous proposals for changes submitted by State and local health authorities, agricultural agencies, the dairy industry, equipment manufacturers and others. Among these proposals were those submitted by the Committee on Milk Regulations and Ordinances of the International Association of

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Milk and Food Sanitarians. The most important of the suggested changes were summarized and submitted to State and local health authorities of areas operating under the USPHS Milk Ordinance, as well as to others, for their comment. Upon receipt of the comments of State and local authorities, a detailed compilation of all suggested changes together with significant comments thereon, was submitted to the Public Health Service Milk and Food Sanitation Advisory Board for their consideration. This compilation totaled 150 typed pages. The Advisory Board met in June 1947 and recommended the acceptance of a large number of the proposals. Included therein were several changes designed to meet conditions in areas whose regulations were not equivalent to those contained in the USPHS Milk Ordinance.

The changes recommended by the Advisory Board were incorporated into a revision of the 1939 edition of the Milk Ordinance, which was published in multilithed form in April 1949. Comments received from many States and municipalities relative to some of its provisions necessitated further revision of the Milk Ordinance proper before work could be commenced on the interpretive code.

In the development of the Milk Code many problems were encountered which required further investigation and study, and consequently delayed completion of the Code. Technical developments, and advancements in dairy science, public health, veterinary medicine, and related fields, were most rapid during the ten-year period, 1940-1950; and it was desired to take cognizance of these developments in the new edition. This was done to the fullest extent possible. The new edition, which is entitled "Milk Ordinance and Code—1953 Recommendations of the Public Health Service," is now available.†



John D. Faulkner was born in New Bern, North Carolina, in 1911. He attended North Carolina State College, Raleigh, North Carolina, from which he graduated in 1933 with the degree of Bachelor of Science in Mechanical Engineering. He also attended the graduate schools of the University of North Carolina and the University of Michigan, and received his Master of Science degree in Public Health Engineering from the University of Michigan.

During the period 1935-1941, Mr. Faulkner was employed by the North Carolina State Board of Health, serving as Chief of the Milk Sanitation Unit from 1939 until he was called to active duty with the Army of the United States in December 1941.

In 1946 Mr. Faulkner joined the staff of the Institute of Inter-American Affairs and was assigned to Brazil, where he held the position of Chief Sanitary Engineer and Assistant Director of the Institute's Brazilian Health and Sanitation Program. In 1949, he was commissioned in the Public Health Service and was assigned to the Milk and Food Branch as its Assistant Chief. In October, 1951, upon the reassignment of Mr. A. W. Fuchs, he became the Chief of the Milk and Food Branch.

Mr. Faulkner has served on the Executive Board of the International Association of Milk and Food Sanitarians for the last three years, and is at the present time President-Elect of the Association.

The remainder of this paper will be devoted to a discussion of the most significant changes and modifications, as compared to the 1939 edition.

GENERAL PROVISIONS

The original form and method of presentation used in the 1939 and earlier editions have been retained; however, the 1953 edition is divided into four major parts, rather than three as was previously the case. These parts are as follows: Part I, The adoption-by-reference or short form; Part II, the unabridged form of the Ordinance; Part III, the interpretive code; and Part IV, Appendixes, which is new.

The most significant changes in the general provisions relate to mandatory pasteurization, streamlining of the interpretive Code, and the inclusion of nine appendixes.

The 1953 edition has been developed as a mandatory pasteurization ordinance; however, for those small communities which still find it necessary to permit the sale of retail raw milk, that option is allowed. A list of the necessary amendments which must be incorporated for the sale of retail raw milk to be permitted is presented at the end of Part II, the unabridged U. S. Public Health Service Milk Ordinance.

Part III, the U. S. Public Health Service Milk Code, has been streamlined. Obsolete material has been eliminated, while much of the useful explanatory material, formerly scattered throughout the 1939 edition of the Code, has been gathered into the completely new section, Part IV, Appendixes, where it is organized according to subject matter. Thus, the revised Code is limited, for the most part, to statements of "public-health reason" and "satisfactory compliance" for each requirement of the Ordinance. The new Appendixes contain explanatory material as well as detailed requirements on such items as water supply, excreta disposal, BAI regulations, and pasteurization plant tests. The Appendixes are referred to in the Code, and are considered an integral part thereof.

Another change is that the revised edition has been so developed that either a "degrading" or a "non-degrading" form may be adopted. The "non-degrading" form is enforceable by permit suspension, court action, or both. The "degrading" form is enforceable by all of the above means, and, in addition, through degrading of the sup-

ply. The use of the Grade A designation is a fundamental principle of both forms. In the "degrading" form, Section 8 allows the choice of prohibiting or permitting the regular sale of grades lower than Grade A pasteurized.

REVISIONS MADE IN THE ORDINANCE AND CODE (PARTS II AND III)

Section 1. Definitions.

The principal changes and additions are as follows:

In the definition of "Milk", the solids-not-fat content has been increased from 8 to 8 $\frac{1}{4}$ percent. Also, the definition of "Vitamin D Milk" now specifies that vitamin D milk must contain 400 USP units of vitamin D per quart.

Definitions have been added or amended for the following products: "Light Cream, Coffee Cream or Table Cream;" "Whipping Cream;" "Light Whipping Cream;" "Heavy Cream, or Heavy Whipping Cream;" "Half and Half;" "Reconstituted, or Recombined, Half and Half;" "Whipped Cream;" "Concentrated Milk;" "Concentrated Milk Products;" "Dry Milk;" "Nonfat, Fat-Free, or Defatted Milk;" "Skim-Milk Solids;" "Nonfat Dry-Milk Solids;" "Flavored Milk;" "Flavored Drink, or Flavored Dairy Drink;" "Flavored Reconstituted Milk;" "Flavored Reconstituted Drink, or Flavored Reconstituted Dairy Drink;" "Cultured Buttermilk;" "Cultured Milk;" "Reconstituted, or Recombined, Skim Milk;" "Cottage Cheese;" and "Creamed Cottage Cheese". Since the development of Grade A standards for dry milks has not been completed. "Dry Milk" and "Nonfat Dry-Milk Solids" have not been included in the list of milk products subject to grading.

A definition for "Fortified Milk and Milk Products" has also been included as a footnote, for incorporation by those communities which desire to permit the sale of milk and milk products fortified with vitamins and/or minerals, in addition to "Vitamin D Milk." It is desired to point out, however, that the Public Health Service does not advocate the indiscriminate fortification of milk and milk products with vitamins and/or miner-

als, other than vitamin D. This position is in accordance with the views of the American Medical Association and the National Research Council.

"Cottage Cheese" and "Creamed Cottage Cheese" have been included in definition K, "Milk Products," but may be exempted from the grading provisions, as is explained in a footnote.

In the definition of "Pasteurization," the high-temperature short-time temperature requirement has been increased from 160°F. to 161°F.

Under definition M, the watering of milk is deemed adulteration. Also, a definition P-2, "Milk Hauler," has been included in Section 1.

Reduction tests, both methylene blue and resazurin, are no longer recognized in the definition, "Average Bacterial Plate Count, Direct Microscopic Count, and Cooling Temperature." Communities finding it necessary to permit use of reduction tests may do so by amending definition S, in accordance with a footnote.

Section 2. The Sale of Adulterated, Misbranded, or Ungraded Milk or Milk Products Prohibited.

This section now includes a provision that, in an emergency, the sale of ungraded milk or milk products may be authorized, provided such products are labeled "ungraded." An emergency is defined as a general and acute shortage in the milkshed, not simply one distributor's shortage, and may be declared for a limited time only. This new statement is a broadening of the emergency provisions formerly included in Section 11 of the 1939 edition.

Section 2 also provides that any adulterated, misbranded, and/or improperly labeled milk or milk products may be impounded by the health officer, and disposed of in accordance with State law. The presence of antibiotics, chemical bactericides, or other unapproved additions shall constitute adulteration.

Section 3. Permits.

A milk hauler, as defined in Section 1, must secure a permit under the terms of Section 3, unless he is an employee of a producer, distributor, or milk plant operator, or any other person to whom a permit has been previously granted.

Any permit may be suspended for interference with the health officer in the performance of his duties, as well as for violation of the terms of the Ordinance.

Section 4. Labeling.

Only the identity of the producer dairy is now required on cans delivered to a milk plant which receives only one grade of raw milk for pasteurization, and which immediately dumps, washes, and returns the cans to the producer dairy. In cases where several pasteurization plants are operated by one firm, no objection is made to the use of a common firm name on milk bottles or containers, provided that the location of the plant at which the contents were pasteurized is also shown, either directly or by a code or permit number. Identity-labeling requirements may be interpreted as permitting plants to purchase in the final container, and distribute under their own label, milk and milk products processed and packaged at another plant, provided the name and address of the processing plant are included on the label. If approved by the health officer, a code or permit number may be substituted for the name and address.

In the case of "Vitamin D Milk," the number of USP units per quart must be shown on the label. In the case of concentrated milk or milk products, the label must show the volume or proportion of water to be added for recombining in the home.

Homogenized milk or cream may not be mixed with milk, skim milk, or cream which has not been homogenized, unless the product is labeled "homogenized" and conforms with the standards for homogenization in Section 1 (J).

The requirement of the 1939 edition, that restaurants, soda fountains, etc. shall display a placard stating the lowest grade of milk

sold, has been deleted from the revised edition.

Section 5. Inspection of Dairy Farms and Milk Plants.

All milk producers and distributors must permit the health officer access to all parts of the establishment, and distributors must furnish, for official use upon request, a record of the actual quantities of milk and milk products of each grade purchased and sold, a list of all sources of milk and milk products, records of inspections and tests, and pasteurization time and temperature records.

A footnote (21) has been included which, if adopted, permits the health officer to accept the results of periodic industry inspection of producer dairies, provided such inspection is a supplement to and not a substitute for official inspection, and provided, further, that the health officer satisfies himself that such industry inspection is performed in accordance with the terms of the Ordinance.

Section 6. The Examination of Milk and Milk Products.

This section of the 1953 edition includes a number of important changes. At least four samples of homogenized milk, as well as four samples of regular milk and cream, must be analyzed during each 6-month period. It is also required that other milk products be sampled in approximate proportion to the volume sold, but not less than once during each 6-month period.

In the case of raw milk for pasteurization, the health officer is authorized to accept the test results of industry or commercial laboratories which he has checked periodically and found to be satisfactory. These non-official laboratory examinations are not intended to be a complete substitute for official control, but a supplement thereto. If such laboratory results are accepted, the health officer is required to examine at least one sample per 6-month period of each producer's milk supply. This provision does not apply to pasteurized milk and milk products.

A coliform count standard of not more than 10 per ml has been included for pasteurized milk, cream, half and half, etc. (Sec. 7). Because

it is impracticable to compute a logarithmic average when any of the counts are zero, as may sometimes occur in the case of coliform counts, and since an arithmetic average of coliform counts that may vary over a wide range is unreasonable and undesirable, the coliform standard has been established on the basis that not more than one of the last four coliform counts shall exceed 10 per ml. It is felt that this is a liberal standard which is justified for an initial program, but which might well be made more stringent in the future. The new edition also permits the adoption of this 3-out-of-4 method for determinations other than coliform counts. A footnote (25) to be incorporated into the Ordinance has been included for communities desiring to utilize this method.

Section 6 states that, in all cases, milk must show efficient pasteurization, as evidenced by a satisfactory phosphatase test (Sec. 7). In case the phosphatase test shows improper pasteurization, the probable cause shall be determined and corrected before milk or milk products from the plant concerned can again be sold as pasteurized milk or milk products.

Section 7. The Grading of Milk and Milk Products.

Bacterial Standards: The bacterial plate or direct microscopic clump count standard for grade A raw milk for pasteurization has not been changed, and remains at 200,000 per ml as delivered from the farm. A new standard has been inserted limiting the count at any time after dumping and before pasteurization to 400,000 per ml. This new standard is in recognition of the inevitable increase in count resulting between receipt from the producer and pasteurization, particularly where the milk is transported from a receiving station to a pasteurization plant. When a community permits the use of reduction tests, the corresponding methylene-blue reduction times are 5½ and 4¾ hours, respectively, as determined by the modified inverted test described in "Standard Methods," and the corresponding resazurin reduction standards are 2¾ hours and 2½ hours to P 7/4, respectively.

The most significant changes and additions in the items concerned with production and handling of raw milk for pasteurization are as follows:

Item 1r. Cows—Health: All milk for pasteurization must come from herds located in a modified accredited tuberculosis-free area, which has been tested not more than 6 years before adoption of the Ordinance and at least every 6 years after such test. However, herds located in an area failing to maintain such accredited status or having an incidence of bovine tuberculosis exceeding 0.2% must be accredited by the BAI as tuberculosis-free, or otherwise must pass an annual tuberculin test. Within a period not to exceed 3 years, all milk or milk products for pasteurization must come from herds certified by the State Livestock Sanitary Authority as following either Plan A or Plan B approved by the BAI for the eradication of brucellosis. All additions to the herds must be brucellosis-free; tests and retests shall be made, and any reactors disposed of in accordance with the requirements of the BAI, USDA. Cows which show complete induration in one quarter need not be excluded from the milking herd if the affected quarter is completely dry and inactive.

Item 4r. Milking Barn—Floors—Animals: Tight wooden floors in the milking portion of the barn are no longer acceptable for existing installations. No swine or fowl are allowed in the barn, and other animals, if kept in the barn, shall be confined in stanchions, stalls, or pens, which must be kept clean and in good repair.

Item 6r. Cow Yard: Provisions concerning loose-housing of cattle are incorporated into this item. They provide that in such areas, manure droppings shall be removed, or clean bedding added, at sufficiently frequent intervals to prevent the accumulation of manure on cows' udders and flanks. Manure, soiled bedding, and waste feed may not be maintained in such manner that the manure pack is not properly drained or does not provide a reasonably firm footing for the animals. No attempt was made to include detailed specifications for

loose-housing, pen-stabling, etc., although numerous groups recommended that such action be taken. Our reasons for not doing so were based on our belief that the general items adequately covered the sanitation requirements of the various systems.

Item 8r. Milk House or Room—Construction and Equipment: The previous requirement that none of the milk-house operations be conducted elsewhere has been modified to permit cleaning and bactericidal treatment of pipeline milkers in place, if approved by the health officer, in such manner as to comply with the provision of Items 13r and 14r.

Of particular interest is the change in the milk house vestibule requirement [Sub-item 8r(e)]. This has been modified so that, when the milking barn or parlor is used only for milking and the feeding of concentrates, and not for the housing of cattle, a direct opening into the milk house may be permitted when a solid, self-closing door, opening outward from the milk house, is provided. When a vestibule is required, it must have two self-closing doors, so arranged that both doors will not be open at the same time. Such doors may swing inward, outward, or both ways, and at least one of them must be solid. The milk-house screening, cleanliness, and drainage provisions apply to vestibules.

The Ordinance recommends that water should be piped into all existing milk houses, and requires that it must be piped into all milk houses hereafter constructed, reconstructed, or extensively altered. An exception is made where it is not possible to obtain an adequate supply on the premises [Sug item 8r(e)].

Item 9r. Milk House or Room—Cleanliness and Flies: When insecticides are used for milk-house fly-control purposes, care must be exercised to protect the milk and milk-room equipment from contamination by the insecticide.

Item 11r. Water Supply: A private water supply must now comply with the standards of the State health authority, and at least the minimum requirements outlined in

an Appendix (D). At least one inspection shall be made semi-annually to determine compliance with requirements. Samples for bacteriological examination must be made upon initial approval of the physical structure, and thereafter when any repair or alteration has been made. A number of changes have also been made in the construction requirements for private water supplies. Existing pits must meet minimum specifications; pumps may be located in residential basements not subject to flooding; and a driven or drilled well may be located closer than 10 feet to a residential basement.

Item 12r. Utensils—Construction: This item now includes a statement that all milking machines, including pails, heads, milk claws, milk tubing, and other milk-contact parts, must be so constructed as to be easily cleaned. Under this provision, pulsators, air tubing, and vacuum lines are not normally considered as milk-contact parts.

Item 14r. Utensils—Bactericidal Treatment: The revised edition has been changed to permit the use of chemical bactericides other than chlorine, subject to the approval of the health officer. Such approval shall be based on satisfactory tests. Also, this item now provides that large equipment may be given bactericidal treatment by spraying, in which case the concentration of the chemical bactericide should be doubled. The storage of rubber parts of milking machines in a 0.5% lye solution, followed by a rinse before using, now constitutes satisfactory bactericidal treatment. A final chlorine rinse has been found unnecessary for rubber parts so treated.

Item 15r. Utensils—Storage: When the health officer has approved the cleaning-in-place of pipeline milkers, only those parts which need be removed for proper cleaning must be stored in the milk house.

Insecticides, drugs, or other toxic materials shall be stored in such manner as to preclude the possibility of contaminating equipment, milk-contact materials, and other supplies.

Clean milk cans, after delivery to the dairy farm, must be stored in

the milk house within a reasonable time. Unprotected storage along the highway constitutes a violation of this item.

Item 19r. Milker's Hands: This item now requires that no person with an infected cut or lesion on hands or arms shall milk cows, or handle milk or milk utensils.

Item 22r. Removal of Milk: The 1939 edition prohibited the straining of milk in the dairy barn; however, in the new edition, straining of milk in the barn is allowed under certain protective conditions.

Item 23r. Cooling: One of the most significant changes relates to the cooling of milk for pasteurization. The new Ordinance requires that such milk must now be cooled to 50°F. or less within 2 hours after completion of milking, and must be maintained at that temperature until delivery, unless it is delivered to a milk plant or receiving station within 2 hours after completion of milking of the herd. Communities which find it necessary to do so may, however, substitute 60°F.; but, in order to be recognized as having adopted this Ordinance without downward revisions, a proviso must be inserted in the Ordinance that the 50°F. cooling requirement shall become effective within 5 years from the date of adoption.

Item 24r. Vehicles and Surroundings: Items 24r, "Bottling and Capping", and 25r, "Personnel-Health," of the 1939 edition were concerned with retail raw milk, and have been deleted. The material formerly contained in Item 26r has been transferred to a new Item 24r, entitled "Vehicles and Surroundings."

Requirements for bulk milk transportation tanks or vats are noted in Item 24r, but are referenced to Items 12r, 13r, and 14r, which are concerned with construction, cleaning, and bactericidal treatment. This has been done to avoid double penalty in the case of a violation of one of these latter items.

Screening Tests; In recognition of the importance of industry quality-control programs, the 1953 edition contains a recommendation that each plant or receiving station conduct quality screening tests, with follow-up visits by plant field-

men where indicated. Such tests may include odor, temperature, strainer-dipper, sediment, and laboratory pasteurization or thermodynamic counts. It is suggested that these tests be made monthly or oftener, and that abnormal or otherwise unsatisfactory milk be rejected.

Definition of Grade A Pasteurized Milk: There have been no changes in the bacterial count standard for grade A pasteurized milk; however, as previously mentioned, a coliform standard for pasteurized milk of not to exceed 10 per ml has been added.

The most significant changes in the requirements concerned with the pasteurization of milk are:

Item 3p. Doors and Windows: This item has been clarified so that the actual presence of flies inside the plant shall now be considered as a violation of Item 5p, and item 3p refers only to physical facilities for the exclusion of flies from the plant interior.

Item 5p. Miscellaneous Protection from Contamination: This item now requires that all poisonous substances must be stored and handled in such manner as not to contaminate the milk, milk products, ingredients, containers, equipment, or other supplies.

This item also includes a new provision that milk and milk products must be standardized before pasteurization, unless pasteurized milk or milk products are used for standardization, in which case certain protective conditions must be observed.

Item 7p. Water Supply: Several new provisions have been included in this item. A safe water supply cannot be cross-connected with an unsafe or questionable water supply, or other source of possible pollution; condensing water for milk evaporators must be from an approved source; and samples for bacteriological examination must be collected at not less than semi-annual intervals when the supply is from a private source.

Item 9p. Sanitary Piping: One of the most significant changes in the Milk Ordinance and Code is concerned with acceptance of per-

manent-type milk pipelines, and the following detailed requirements relating thereto have been included. Permanent-type milk pipelines must be self-draining, and (a) have joints provided with self-positioning, flexible gaskets of non-toxic, low-absorption material, and of such design as to form a flush, interior joint; or (b) have self-positioning joints, of such design and finish as to form a smooth, flush interior; or (c) have all joints welded and smoothly polished on the interior face, and be provided at all changes in direction, with welded crosses equipped with removable caps, or removable elbows, or welded elbows provided with inspection openings of adequate size. The return recirculating lines must be of the same or equivalent material and construction. The use of rubber or similar materials in the milk pipeline system is permitted only when necessary to prevent leakage, although short lengths of hose may be used for connection purposes during cleaning operations.

Item 10p. Construction and Repair of Containers and Equipment: Single-service containers must be fabricated or processed in such a manner that they will meet the bacteriological standard of not more than 1 per ml of capacity. The times and temperatures for bactericidal treatment of such containers set forth in the 1939 edition have been deleted. A suggestion has also been included that health officers may accept new dairy equipment which meets the 3-A Sanitary Standards, as reported from time to time in the *Journal of Milk and Food Technology*, as being in compliance with the Milk Ordinance and Code. This statement is not intended, however, to recommend the replacement of existing equipment which complies with the Ordinance.

Item 12p. Cleaning and Bactericidal Treatment of Containers and Equipment: This item has been revised, similarly to Item 14r, to permit the use of approved chemical bactericides other than chlorine compounds. Also, as mentioned above a suggested procedure for the cleaning-in-place of milk pipelines, which has been demonstrated to be satisfactory, has been included; and

certain requirements to be met by C-I-P systems are specified.

Item 16p. Pasteurization: A major change in the organization of the Code has been made through the revision of Items 16p and 17p. Requirements applicable to the 30-minute hold-method of pasteurization are now completely segregated from those applicable to high-temperature short-time pasteurization. In addition, that portion of Item 17p of the 1939 edition which was concerned with pasteurizers employing regenerative heating has been transferred to Item 16 p. All material relating to temperature-control instruments and devices, regardless of type of system, has been grouped together [sub-item 16p (a)], as has the material relating to recording-thermometer charts [sub-item 16p (e)].

Many other changes have been adopted to improve the specifications of Item 16p which are related to such items as insurance of adequate holding time, regenerator pressures, other features of automatic pasteurization systems, use of booster pumps, equipment tests, pasteurizer valves, etc.

Item 17p. Cooling: Certain design and construction requirements for surface-coolers, which were exempted for existing installations in the previous edition, are now mandatory for all surface-coolers. Tight-fitting covers are now required for all surface-coolers regardless of location.

Item 18p. Bottling and Packaging: This item, entitled "Bottling" in the former edition, has been changed to "Bottling and Packaging," and has been expanded to include requirements necessary for single-service packaging machines.

Item 20p. Capping: This item has been changed to require single-service containers to be so constructed that the contents and pouring lip are protected from contamina-

tion during handling and storage; and that nothing on top of the container can contaminate the contents or pouring lip when the containers are opened. This latter provision does not become effective until January 1, 1955.

Item 21p. Personal-Health: This item has been expanded to require health examinations for employees of receiving stations.

Item 23p. Vehicles: The title of this item has been changed from "Miscellaneous" to "Vehicles." Requirements have been included covering the operation of milk tank-cars and tank-trucks. Such tanks must also comply with the construction, cleaning, bactericidal treatment, storage, and handling requirements of Items 5p, 10p, 12p, 13p, and 14p.

Section 8. Grades of Milk and Milk Products Which May Be Sold.

This section now restricts the sale of market milk to certified-pasteurized and Grade A pasteurized.

Section 11. Milk and Milk Products from Points Beyond the Limits of Routine Inspection.

This Section now provides that acceptance of milk supplies, from points beyond the limits of routine inspection by the jurisdiction enforcing the Ordinance, shall be based upon the following: (1) The supply must be produced and processed under regulations which are substantially equivalent; (2) the supply must be under routine official supervision at the source; and (3) the supply must have been awarded a milk sanitation rating equal to that of the local supply, or if lower than that of the local supply, equal to 90% or more on the basis of the PHS rating method. Final approval of such supplies shall be dependent upon results of laboratory examinations of the milk as received.

PART IV APPENDIXES

Nine appendixes have been included in Part IV which provide detailed information for the sanitarian, dairyman, and plant operator. In addition, specifications related to specific items of the Ordinance are included in certain of the appendixes, and must be complied with. The titles of the various appendixes are as follows:

Appendix A.—*BAI Regulations for Tuberculosis and Brucellosis Control.*

Appendix B.—*Dairy-Construction and Operation.*

Appendix C.—*Excreta Disposal.*

Appendix D.—*Water Supply.*

Appendix E.—*Chemical, Physical, and Bacteriological Examinations.*

Appendix F.—*Bactericidal Treatment.*

Appendix G.—*Pasteurization - Plant Equipment.*

Appendix H.—*Pasteurization - Plant Equipment Tests.*

Appendix I.—*Forms and Records.*

In addition to the principal changes which have been discussed above, many other changes and modifications of lesser importance have been made, but time does not permit a discussion of these. It is also desired to point out that, in the interest of uniform interpretation, a special effort was made to clarify the intent of all "satisfactory compliance" items in the Milk Code.

For your information copies of the Milk Ordinance and Code—1953 Recommendations of the Public Health Service (PHS Publication 229) will be forwarded within the next few weeks to all State health departments, and to the local health departments of those communities which have adopted the 1939 edition. Individuals desiring copies can obtain them from the Superintendent of Documents, Government Printing Office, Washington, D. C.

FORTIETH ANNUAL MEETING

MICHIGAN STATE COLLEGE

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