

1966. No. 204

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MARKETING OF MILK PRODUCTS

REGULATIONS, DATED 26TH DAY OF AUGUST 1966, MADE BY THE MINISTRY OF AGRICULTURE UNDER THE MARKETING OF MILK PRODUCTS ACT (NORTHERN IRELAND) 1958(a).

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The Ministry of Agriculture in exercise of the powers conferred on it by Section 15 of the Marketing of Milk Products Act (Northern Ireland) 1958 as amended by the Milk (Amendment) Act (Northern Ireland) 1963(a) and Section 18 of the Agriculture (Miscellaneous Provisions) Act (Northern Ireland) 1965(b), and of every other power enabling it in that behalf, hereby makes the following Regulations with the concurrence of the Ministry of Health and Social Services in so far as they relate to buttermilk:—

PART 1

Short Title and Commencement

1. These Regulations may be cited as the Marketing of Milk Products Regulations (Northern Ireland) 1966 and shall, save as is provided in Regulation 37(8) and in paragraph 4(2) of Schedule 4, come into operation on the 1st day of January 1967.

Interpretation

2. In these Regulations—

“the Ministry” means the Ministry of Agriculture;

“dried milk” means milk, partly skimmed milk or skimmed milk which has been concentrated to the form of powder or solid by the removal of water;

“raw milk” means milk which has not been subjected to any form of treatment by heat;

“received”, in so far as it is referred to in Part 5, includes examining the milk, transferring the milk from the producer’s cans to the purchaser’s receptacles and weighing the milk.

(a) 1963. c. 11 (N.I.).

(b) 1965. c. 3 (N.I.).

PART 2

LICENCES

Applications for Licences

3.—(1) Every application for a licence shall be made to the Ministry in the form prescribed in Schedule 1.

(2) (a) The fee payable in respect of the issue or renewal of a licence solely for the manufacture of dairy ice-cream shall be £1.

(b) The fee payable in respect of the issue or renewal of any other licence shall be £10.

Conditions

4. A licence shall be issued and held subject to compliance by the licence-holder with these Regulations so far as they are applicable to him.

PART 3

REGISTRATION OF PREMISES

Application

5. Application for the registration of premises shall be made to the Ministry in the form prescribed in Schedule 2.

Conditions

6. Premises shall be registered if they comply with the conditions of this Part, and the registration thereof may be cancelled if at any time the premises cease so to comply or if the owner or occupier thereof fails to comply with any of the provisions of these Regulations so far as they are applicable to him.

Premises

7.—(1) All registered premises shall conform to the requirements set out in Schedule 3 and shall in addition fulfil the requirements of this Regulation.

(2) The premises shall be divided into such separate rooms as are considered reasonable to prevent the exposure to any source of contamination of any milk or milk product.

In particular, and where applicable, there shall be provided:—

(a) a separate room for the storage of materials or ingredients used in the manufacture, or for the packing, of milk products;

(b) accommodation, for the reception of milk and skimmed milk in cans and the washing of cans, which shall not communicate with any room where milk is processed or milk products are manufactured or handled, except by door, window or other opening necessary for the conveyance of the milk so received to such processing or manufacturing room.

(3) A licence-holder shall also provide and maintain in or within reasonable distance of the premises, clean and serviceable cloakroom and lavatory accommodation sufficient for the number of persons engaged on the premises.

(4) The premises shall not, except with the written permission of the Ministry and in accordance with any conditions attached thereto, be used for any purposes other than:—

(a) the purposes for which the premises are registered, or

(b) the manufacture of any product of which milk is a main ingredient.

Machinery, Equipment, Utensils and Containers

8.—(1) The surfaces of any machinery, equipment, utensils or containers with which milk or any milk product is liable to be in contact shall be so constructed, finished and maintained as to enable them to be readily cleaned in the manner prescribed in these Regulations. The said surfaces shall be free from rust or other corrosion and be of such materials that they will not have any injurious effect on the milk or milk product. They shall be accessible for visual examination provided that the Ministry may approve plant or parts of plant not so accessible if it is satisfied that a test for cleanliness can be carried out.

(2) All fixed machinery and equipment shall be so constructed and placed as to secure the protection of any surface thereof with which milk or a milk product is liable to be in contact, or of the milk or the milk product, from contamination by dust or otherwise. It shall further be so constructed as to create no dead ends or pockets from which milk, milk product or cleansing fluids cannot be readily removed.

(3) Any opening in any milk tanker or vessel (other than a bottle or carton) used for the storage or transport of milk, skimmed milk, buttermilk or cream shall be so constructed and closed as to prevent access to the milk, skimmed milk, buttermilk or cream, of dirt, dust or other extraneous material or rain water or the return to the interior of the tanker or vessel of any milk, skimmed milk, buttermilk or cream which may have been splashed on the outer surface. Provided that this paragraph shall not apply to the receiving, weighing and balance tanks on premises registered for the purpose of receiving milk whether from farms or other receiving stations where the Ministry is satisfied that the milk is otherwise adequately protected.

The Ministry may grant to the owner of premises registered on the day on which these Regulations were made, authority to continue to use such raw milk storage tanks, not conforming to the requirements of this paragraph, as were on the said registered premises on the said day, and for such time as may be specified in the authority.

Water Supplies

9.—(1) All registered premises shall be provided with a supply of water suitable and sufficient and at such points as will enable the requirements of these Regulations to be expeditiously observed. The said water shall be clean and free from pollution and shall be protected against contamination.

(2) Water which does not satisfy the requirements of paragraph (1) shall not be:—

- (a) supplied on tap within any part of the premises where milk or milk products are handled; or
- (b) used for the cleaning of the interior of the premises or for the rinsing, washing or sterilising of any machinery, equipment or utensils with which milk or milk products may come into contact; or
- (c) used in any process connected with the handling of milk or milk products in such manner as might, in the opinion of the Ministry, cause them to be contaminated.

(3) Every vessel used for the storage of water shall be emptied and cleaned as often as is necessary to prevent pollution of the water.

PART 4

CONDITIONS TO BE OBSERVED ON ALL REGISTERED PREMISES

Cleaning of Premises

10.—(1) All registered premises, together with the immediate approaches thereto and surroundings thereof, shall be kept clean and free from obnoxious fumes:

(2) All reasonable precautions shall be taken to keep the premises free from birds, flies or vermin.

(3) No foul or offensive matter shall be kept in, or conveyed through, a room where milk is processed or milk products are manufactured.

(4) No substance which might impart an offensive taste or smell to milk or a milk product, and no article which is dirty or which being likely to collect dust is incapable of being easily cleaned, shall be deposited or kept in any room where milk is processed or milk products are manufactured.

(5) The owner or occupier shall not permit any dogs or other animals to enter or remain in any room where milk is processed or milk products are manufactured or in any shed or room communicating directly therewith.

Cleaning of Machinery, Equipment and Appliances

11.—(1) The provisions of this Regulation shall not apply to cans, bottles, cartons or to any apparatus used for drying milk by the spray process or for sifting, packing or conveyance of any dried milk.

(2) All machinery, equipment and appliances used for the handling of milk or milk products shall, as soon as practicable after use and in any case after each day's operations have been completed, be thoroughly rinsed and washed.

(3) All machinery, equipment and appliances in which milk or milk products are to be handled shall before each day's operations commence be sterilised by one or other of the following methods:—

(a) by exposure to steam in an enclosed container for a continuous period of not less than 15 minutes at a temperature of not less than 210° Fahrenheit (99° Centigrade); or

(b) by injection of steam for a continuous period of not less than 15 minutes after the resultant condensate has reached a temperature of not less than 200° Fahrenheit (93.5° Centigrade); or

(c) by injection of water at a temperature of not less than 180° Fahrenheit (82° Centigrade) for a continuous period of not less than 30 minutes; or

(d) by the use of a chemical sterilising agent approved by the Ministry; the said chemical sterilising agent shall thereafter be removed by thoroughly rinsing with water; or

(e) by such other method as may be approved in writing by the Ministry.

(4) Any machinery, equipment or appliance, or section thereof, in which milk, skimmed milk, or cream is retained at a temperature of more than 75° Fahrenheit (24° Centigrade) and not more than 165° Fahrenheit (74° Centigrade), or is liable to be retained, shall be rinsed and washed and sterilised in accordance with the last preceding paragraph at such intervals as will prevent any undue bacterial development in the milk,

skimmed milk or cream while being so retained, as well as being rinsed and washed at the completion of the day's operation.

(5) All reasonable precautions shall be taken to protect machinery, equipment and utensils from contamination by dust, dirt or otherwise.

Cleanliness of Persons

12.—(1) Every person whilst engaged in the handling of milk or milk products on any registered premises shall:—

- (a) keep his person and outer clothing clean;
- (b) keep any open cut or abrasion on any exposed part of his person covered with a suitable waterproof covering.

(2) No person suffering from open sores or wounds or from a heavy cold or sore throat shall be permitted to engage in any operations whereby such person would be liable to contaminate milk or milk products.

(3) Every person whilst engaged in the handling of milk or milk products on any registered premises shall in addition to the requirements in paragraphs (1) and (2):—

- (a) wear a clean washable head covering and a clean washable overall which shall not be used otherwise than while engaged in the said occupations;
- (b) refrain from spitting; and
- (c) refrain from the use of tobacco (including snuff).

(4) The owner or occupier shall provide in a convenient part of his premises for the use of persons to whom this Regulation applies suitable and sufficient bandages, dressings (including waterproof dressings) and antiseptic for First Aid treatment.

(5) The owner or occupier shall provide for the use of persons to whom this Regulation applies facilities to wash and clean their hands and forearms, including an adequate supply of clean hot and cold water, soap or other suitable detergent, nail brushes and clean towels or other suitable drying facilities and shall provide such facilities at convenient points throughout the premises where milk or milk products are being handled and adjacent to every lavatory.

(6) The owner or occupier of registered premises shall take reasonable steps to make the provisions of the Regulations known to every person in his employment so far as such provisions impose any duties or restrictions on such persons and so far as they relate to the premises or part of the premises in which such person is employed.

Storage of Materials and Ingredients

13. All materials or ingredients used in the manufacture, treatment or packing of milk products shall be stored in the separate room provided for such storage and shall be maintained therein in a clean and dry state and free from contamination.

PART 5

PROVISIONS RELATING TO THE RECEIPT OF MILK

The Receipt of Milk from Farms

14.—(1) A licence-holder who receives milk in cans from farms shall provide and use for its reception such facilities, including arrangements for the

examining, weighing and storage of milk, as will ensure that no unreasonable delay is caused from the time of the arrival of the milk until it is received.

(2) All milk received from farms shall, as soon as practicable after being so received, be:—

- (a) processed in accordance with Part 6; or
- (b) manufactured; or
- (c) cooled to a temperature not exceeding 45° Fahrenheit (7° Centigrade) and retained at that temperature until processing or manufacture commences.

(3) Paragraph (2) shall not apply to milk which by reason of its quality must be retained and handled separately from other milk.

The Receipt of Milk from other Receiving Stations

15. A licence-holder who receives milk in cans from other receiving stations shall provide and use such facilities for the unloading of that milk as will ensure that no unreasonable delay is caused from the time of arrival of the milk until it is received.

The Cleansing of Containers

16. A licence-holder who receives milk, whether from farms or from other receiving stations, shall cause the cans or milk tankers in which the milk is delivered to be cleansed in accordance with the provisions of Regulation 41 as soon after emptying as practicable and to be securely closed before leaving the premises.

PART 6

PROCESSING MILK FOR DESPATCH

Method of Processing of Raw Milk

17. In the preparation of all milk for despatch as raw milk the following requirements shall be complied with:—

- (1) Milk shall be effectively filtered or clarified and cooled to a temperature of not more than 45° Fahrenheit (7° Centigrade) and retained at that temperature while at the licence-holder's premises.
- (2) Milk shall not be heated or exposed to heat.

Containers

18. Raw milk processed in accordance with Regulation 17 and any milk subjected to any form of treatment by heat shall be filled into cans which have been cleansed on the premises where the milk was processed or into milk tankers.

PART 7

MANUFACTURE OF SKIMMED MILK

Separation

19. Milk shall be separated by means of a power-driven centrifugal separator.

Method of Processing

20. Skimmed milk shall be manufactured in accordance with the provisions of Part 1 of Schedule 4.

Containers

21. Skimmed milk shall be put:—

- (1) into cans which have been cleansed on the premises where the skimmed milk was manufactured, or
- (2) into milk tankers, or
- (3) where the skimmed milk is collected by the owner of registered premises, into cans supplied by him and which have been cleansed by him, or
- (4) where the skimmed milk is collected by a farmer for his own use, into containers supplied by him.

Standard of Quality

22. Samples of skimmed milk if taken, transported, kept and tested in accordance with the procedure set out in Schedule 8 shall contain no coliform bacteria in 1/10 millilitre and shall when submitted to the phosphatase test have a reading of not more than 10 microgrammes paranitrophenol per millilitre.

PART 8

MANUFACTURE OF CREAM

Separation

23. Milk shall be separated by means of a power-driven centrifugal separator.

Method of Processing

24.—(1) *Cream for sale for human consumption as cream.* Cream for sale for human consumption as cream shall be manufactured on registered premises in accordance with the provisions of Part 2 and Part 4 of Schedule 4.

(2) *Cream for despatch for manufacture.* Cream for despatch otherwise than for sale for human consumption as cream (hereinafter referred to as “manufacturing cream”) shall be manufactured in accordance with the provisions of Part 3 and Part 4 of Schedule 4.

(3) A licence-holder may manufacture cream for sale for human consumption as cream or manufacturing cream in accordance with such other process as the Ministry may approve and subject to such conditions as the Ministry may specify.

Packing in Bulk of Cream for Sale for Human Consumption as Cream

25.—(1) Cream for sale for human consumption as cream despatched in bulk to other registered premises shall be put into cans which have been cleansed on the premises where it was manufactured or into a milk tanker. Cans shall be sealed and labelled with the registration number or the name and address or trade name of the premises where the cream was manufactured, the day on which the cream was manufactured and the words “Pasteurised Cream”.

(2) There shall accompany each consignment of such cream in bulk a consignment note on which shall be shown the following information:—

- (a) the name and address of the premises on which the cream was manufactured;
- (b) the name and address of the consignee;
- (c) the date of despatch of the consignment;

- (d) the quantity contained in the consignment;
- (e) the date on which the cream in the consignment was manufactured.

(3) A copy of the consignment note shall be retained for a period of two months.

Packing into Retail Containers of Cream for Sale for Human Consumption as Cream

26.—(1) Subject to paragraph (6) cream for sale for human consumption as cream shall be filled into bottles or cartons or into other retail containers approved by the Ministry on the premises where it is manufactured or on any other premises registered for the extraction of cream from milk.

(2) A licence-holder shall, on his premises, cleanse all bottles immediately before they are used to contain such cream.

(3) Immediately bottles, cartons or other approved retail containers have been filled they shall be securely closed and sealed with a metal cap overlapping the lip or other approved closure.

- (4) (a) A bottle-cap or a carton shall be clearly marked with:—
 - (i) the registration number or the name and address or trade name of the premises at which the cream was filled into the retail container;
 - (ii) the word "Pasteurised".
- (b) A bottle-cap shall bear no printed matter other than that required at (a) save with the written approval of the Ministry.

(5) The size and design of any coloured matter on a bottle shall be approved by the Ministry.

(6) Where the quantity of cream for sale for human consumption as cream intended for delivery to any one consumer is half a gallon or more, a can or container of suitable capacity of a type approved by the Ministry and which has been cleansed on the premises may be used. Such can or container shall be sealed and labelled with the registration number or the name and address or trade name of the premises at which the cream was filled into the can or container and the words "Pasteurised Cream".

Standard of Quality of Cream for Sale for Human Consumption as Cream

27. Samples of cream for sale for human consumption as cream shall, if taken, transported, kept and tested in accordance with the procedure set out in Schedule 8, contain no coliform bacteria in one gramme.

Packing of Manufacturing Cream

28. Manufacturing cream shall be put into cans which have been cleansed on the premises where the cream was made or into a milk tanker.

Storage of Cream for Sale for Human Consumption as Cream and of Manufacturing Cream

29. Cream for sale for human consumption as cream and manufacturing cream shall be maintained at a temperature not exceeding 45° Fahrenheit (7° Centigrade) whilst on the premises where it was packed.

PART 9

THE MANUFACTURE OF FARM BOTTLED CREAM

Definition of Farm Bottled Cream

30. For the purposes of these Regulations, cream for sale for human consumption as cream produced in accordance with this Part shall be known as "Farm Bottled Cream".

Method of Manufacture

31.—(1) Farm Bottled Cream shall be manufactured by being separated by means of a centrifugal separator from milk produced by the holder of a Farm Bottling Licence under the Milk Acts (Northern Ireland) 1950(a) and 1963 on the premises where such milk was produced.

(2) Farm Bottled Cream shall, as soon as is practicable after separation, be cooled to a temperature of not more than 45° Fahrenheit (7° Centigrade) and shall be maintained at that temperature whilst it remains on the premises where it was manufactured.

Packing of Farm Bottled Cream

32.—(1) Subject to paragraph (7), Farm Bottled Cream shall be filled into bottles or cartons or into other retail containers approved by the Ministry on the premises where it was manufactured.

(2) Bottles shall be cleansed before they are used to contain Farm Bottled Cream on the premises where the cream was manufactured. For the purpose of sterilisation the method prescribed in paragraph (4)(a) only of Regulation 41 shall be used.

(3) All equipment used in the manufacture of Farm Bottled Cream shall be cleansed on the premises in accordance with Regulation 11.

(4) Immediately after bottles, cartons or other approved retail containers have been filled they shall be securely closed and sealed with a metal cap overlapping the lip or other approved closure.

(5) (a) A bottle-cap or carton shall be clearly marked with:—

(i) the name and address or trade name of the person on whose premises the Farm Bottled Cream was manufactured;

(ii) in the case of cream filled into bottles the words "Farm Bottled" and in the case of cream filled into cartons the words "Farm Cartoned".

(b) A bottle-cap shall bear no other printed matter save with the written approval of the Ministry.

(6) The size and design of any coloured matter on a bottle shall be approved by the Ministry.

(7) Where the quantity of Farm Bottled Cream intended for delivery to any one consumer is half a gallon or more, a can or container of suitable capacity, of a type approved by the Ministry and which has been cleansed on the premises where the cream was manufactured may be used. Such can or container shall be sealed and labelled with the name and address or trade name of the person on whose premises the cream was manufactured and the words "Farm Bottled".

(a) 1950, c. 31.

Standard of Quality

33. Samples of Farm Bottled Cream if taken, transported, kept and tested in accordance with procedure set out in Schedule 8 shall contain not more than 50,000 bacteria in one gramme.

PART 10

THE MANUFACTURE OF BUTTERMILK

Definitions

34. For the purposes of these Regulations "natural unripened buttermilk" shall be deemed to be that residue generally known as buttermilk obtained from the manufacture of butter and "cultured buttermilk" shall be deemed to be buttermilk manufactured in accordance with Regulation 36.

Packing of Natural Unripened Buttermilk for Despatch

35. Natural unripened buttermilk for despatch shall be filled:—

- (1) into cans which have been cleansed on the premises where the buttermilk was made, or
- (2) into milk tankers, or
- (3) where the buttermilk is collected by the owner of registered premises, into cans supplied by him and which have been cleansed by him, or
- (4) where the buttermilk is collected by a farmer for his own use, into containers supplied by him.

Method of Manufacture of Cultured Buttermilk

36. Cultured buttermilk shall be made by ripening skimmed milk, natural unripened buttermilk or milk, prepared in accordance with Schedule 5 with a starter culture prepared in accordance with the said Schedule.

Packing of Cultured Buttermilk

37.—(1) Cultured buttermilk shall be put into bottles, cartons or other retail containers approved by the Ministry, or into cans or tankers on the premises where the buttermilk was made.

(2) Subject to paragraph (7) buttermilk shall be put by mechanical means into bottles which have been cleansed on the premises, or into cartons or other approved retail containers.

(3) Immediately bottles or cartons have been filled they shall be securely closed and sealed by mechanical means as part of a continuous process of filling, capping and sealing, with a metal cap or other approved closure.

(4) (a) A bottle-cap or carton shall be clearly marked with:—

- (i) the licence-holder's number or the name and address or trade name of the licence-holder;
- (ii) the word "Buttermilk".

(b) A bottle-cap shall bear no printed matter other than that required at (a), save with the written approval of the Ministry.

(5) A bottle-cap and the printed matter required on a carton shall be red in colour.

(6) The size and design of any coloured matter on a bottle shall be approved by the Ministry.

- (7) (a) Where the quantity of buttermilk intended for delivery to any one consumer exceeds two gallons the buttermilk may be put:—
- (i) into cans which have been cleansed on the premises where the buttermilk was made; or
 - (ii) into milk tankers in which case the buttermilk from the milk tanker must be put direct into containers belonging to the consumer.
- (b) Cans shall be sealed and labelled with the licence-holder's number or the name or trade name of the licence-holder and the word "Buttermilk".
- (c) A milk tanker shall be of a minimum capacity of 100 gallons; the interior of the milk tanker or other surfaces with which buttermilk is liable to be in contact shall be of stainless steel and the outlet shall be protected from contamination by dust, dirt, rain water or other extraneous material by means of an overlapping screw-on metal cap or other equally effective closure.
- (8) This Regulation shall come into operation on the 1st October 1967.

Standard of Quality

38. Samples of cultured buttermilk if taken, transported, kept and tested in accordance with Schedule 8 shall contain no coliform bacteria in 1/100 millilitre.

PART 11

THE MANUFACTURE AND STORAGE OF BUTTER

Method of Manufacture

39. Butter shall be manufactured in accordance with the provisions of Schedule 6.

Storage

40. Butter, whether packed in rolls or in bulk shall, while it remains in the premises where it is manufactured, save for such period of time as is required to pack and handle it, be stored at a temperature not exceeding 45° Fahrenheit (7° Centigrade).

PART 12

GENERAL

Cleansing of Containers

41.—(1) Every milk tanker required by these Regulations to be cleansed shall, after rinsing and washing, be sterilised with steam or with an approved chemical sterilising agent in such manner that, when tested in accordance with Schedule 7 the total bacterial count shall not exceed 50,000 per square foot.

(2) Every can required by these Regulations to be cleansed shall be rinsed, washed, sterilised with hot water and steam and dried with hot air in an efficient mechanical washer in such manner that when tested in accordance with Schedule 7 the total bacterial count shall not exceed 50,000. Provided that the said bacteriological standard shall not apply to cans used solely for delivering skimmed milk or buttermilk for animal feeding purposes and clearly marked as such.

(3) Every tanker, and every can which has been cleansed in accordance with this Regulation, shall immediately before use be in a state of thorough cleanliness.

(4) Bottles required by these Regulations to be cleansed shall be either:—

- (a) sterilised by exposure to steam in an enclosed container for a continuous period of not less than 15 minutes at a temperature of not less than 210° Fahrenheit (99° Centigrade); or
- (b) washed and sterilised in an efficient mechanical washer immediately prior to their being filled and, where the bottles are to be used to contain cultured buttermilk, as part of a continuous process of bottle washing and filling.

Protection during Transport of Milk sent in Bulk from one Receiving Station to another and of Buttermilk, Skimmed Milk and Cream

42. Every person engaged in the conveyance of milk sent in bulk from one receiving station to another and of buttermilk, skimmed milk or cream shall take all practicable precautions to prevent the milk, buttermilk, skimmed milk or cream from being unnecessarily exposed to heat and sunlight, and no such person shall leave or cause to be left any cans or bottles or other approved retail containers containing milk, buttermilk, skimmed milk or cream on a public highway except upon final delivery on a retail sale.

Tampering with Bottles or other Containers during Transport

43. No person shall remove or tamper with any cap or other closing device on any bottle or carton or other approved retail container at any time after the said bottle or carton or approved retail container has left the premises where it was filled, and before it is delivered to the consumer.

Opening of Vessels during Transport

44. Except in pursuance of any statutory authority in that behalf, no person shall remove or tamper with a seal on a can or open any tanker, can or other receptacle containing milk sent in bulk from one receiving centre to another or containing buttermilk, skimmed milk or cream in the course of transport or transfer such milk, buttermilk, skimmed milk or cream from one receptacle to another:

Provided that this Regulation shall not be deemed to prohibit:—

- (a) a retail distributor of skimmed milk or buttermilk from opening a tanker or a can containing skimmed milk or buttermilk on final delivery on a retail sale and for the purpose of transferring the skimmed milk or buttermilk to the customer's receptacle; or
- (b) a retail distributor of cream from opening a can containing cream on final delivery on a retail sale;
- (c) a licence-holder or his servant or agent
 - (i) from transferring milk, buttermilk, skimmed milk or cream from a tanker to another tanker in any emergency; or
 - (ii) when taking delivery of milk, buttermilk, skimmed milk or cream, from opening a tanker or can for the purpose of checking or taking a sample of the contents thereof.

Cleanliness of Vehicles

45. The interior of every vehicle used for the conveyance of milk sent in bulk from one receiving station to another and of butter, buttermilk, skimmed milk and cream shall be kept clean. No live bird or animal or any article liable to contaminate or otherwise affect injuriously the milk, butter, buttermilk, skimmed milk or cream shall be conveyed in such a vehicle at the same time

as the milk, butter, buttermilk, skimmed milk or cream and no such vehicle which has been used for the conveyance of offensive matter shall be used for the conveyance of milk sent in bulk from one receiving station to another or of butter, buttermilk, skimmed milk or cream until the vehicle has been thoroughly cleaned.

British Standards Institute

46. Where in these Regulations any reference is made to any article of a certain British Standard specification, the article shall conform to that Standard or to that Standard as amended, revised, or replaced by another Standard, by the British Standards Institute.

Requirements under Food and Drugs Act (Northern Ireland) 1958

47. Nothing in Regulations 26, 32 and 37 shall be construed as requiring the Ministry's approval to be obtained for the marking of a bottle or a cap with such information and in such manner as Regulations relating to labelling made under the Food and Drugs Act (Northern Ireland) 1958(a) may prescribe.

Revocation

48. The Statutory Rules and Orders set forth in Schedule 9 are revoked from the date on which these Regulations come into force.

Sealed with the Official Seal of the Ministry of Agriculture for Northern Ireland this 26th day of August 1966.

(L.S.)

W. G. Malcolm,
Assistant Secretary.

The Ministry of Finance hereby approves of the fees prescribed in Regulation 3.

Sealed with the Official Seal of the Ministry of Finance for Northern Ireland this 26th day of August 1966.

(L.S.)

R. H. Kidd,
Assistant Secretary.

The Ministry of Health and Social Services hereby concurs with these Regulations in so far as they relate to buttermilk.

Sealed with the Official Seal of the Ministry of Health and Social Services for Northern Ireland this 26th day of August 1966.

(L.S.)

N. Dugdale,
Senior Assistant Secretary.

SCHEDULE 1

MINISTRY OF AGRICULTURE FOR NORTHERN IRELAND
MARKETING OF MILK PRODUCTS ACT (NORTHERN IRELAND) 1958

Form of Application for Licence

Year ending 31st December, 19

1. I/We
hereby apply for a licence under Section One of the Marketing of Milk Products
Act (Northern Ireland) 1958 for the following purposes* :—

.....
.....
.....
.....
.....
.....
.....
.....
.....

2. I/We enclose the sum of £ being the fee prescribed for one
licence.

3. I/We hereby undertake, in the event of a licence being granted to me/us,
to comply with such Regulations as the Ministry may issue from time to time
respecting the conduct of my/our business.

I am
4. not less than twenty-one years of age.
We are each

Signature of Applicant

Full Postal Address

.....

.....

Date

To: The Secretary,
Ministry of Agriculture,
BELFAST.

*State here the purpose(s) for which application is made:—

- (1) Receiving milk in bulk.
- (2) Extracting cream from milk.
- (3) Receiving cream from cream producers.
- (4) Making, blending and re-working butter.
- (5) Collecting, examining or classifying butter.
- (6) Manufacture of dairy ice-cream.
- (7) Manufacture of milk products other than butter, cream or dairy ice-cream.

SCHEDULE 2

MINISTRY OF AGRICULTURE FOR NORTHERN IRELAND
MARKETING OF MILK PRODUCTS ACT (NORTHERN IRELAND) 1958

Form of Application for Registration of Premises
Year ending 31st-December, 19

I/We hereby apply for the registration of the premises referred to hereunder which I/we propose to use for the purposes of my/our trade.

Address of Premises	*Purpose for which the premises are used
1.	
2.	
3.	
4.	
5.	
6.	
7.	

Signature of Applicant

Full Postal Address

Date

To: The Secretary,
Ministry of Agriculture,
BELFAST.

*State here the purpose(s) for which the premises will be used:—

- (1) Receiving milk in bulk.
- (2) Extracting cream from milk.
- (3) Receiving cream from cream producers.
- (4) Making, blending and re-working butter.
- (5) Collecting, examining or classifying butter.
- (6) Manufacture of dairy ice-cream.
- (7) Manufacture of milk products other than butter, cream or dairy ice-cream.

SCHEDULE 3

Premises

1. *Siting*

Siting shall be such as to avoid as far as practicable the risk of contamination from outside sources of any milk or any milk product or of any materials or ingredients used in any process of manufacture, blending, re-working or treatment or packing. In particular, no part of the premises in which milk is handled or a milk product is manufactured or handled or in which any materials or ingredient used in any process or manufacture, blending, re-working treatment or packing are stored or handled shall communicate directly by door, window or otherwise with:—

- (a) a sanitary convenience, boiler-house or fuel store or any store used for the storage or handling of any commodity or apparatus from which any dust may arise or which gives off fumes or odours;
- (b) any room used as a kitchen, living-room or bedroom or which is occupied by a person suffering from an infectious or contagious disease; or
- (c) any room, shed or building in which any animals or poultry are kept or to which they have access.

A cess-pool, manure heap, ash heap or other obnoxious accumulation shall not be kept so close to the premises as to cause any risk of contamination.

2. *Construction*

The premises shall be constructed and maintained in such manner as will provide that:—

- (a) they are as far as practicable vermin-proof;
- (b) the floors thereof shall have smooth and impervious surfaces such that they can be readily cleaned and that it is practicable to remove any liquid matter which may fall thereon and shall be so sloped as to convey such liquid matter to a suitably placed outfall. Drains shall be so constructed as to ensure that they can be readily cleaned. Every drainage outfall shall be equipped with a gully trap which shall be located outside the premises and shall be well ventilated, provided that the floor may be equipped with a suitable and effectively trapped internal drain if no other means of drainage is reasonably practicable and the drain does not connect direct with a soil drainage system. Drains and gully traps shall be so constructed and maintained as to provide an unobstructed flow of effluent to the outfalls;
- (c) the internal walls shall be smooth and impervious so that it is practicable to remove any matter which may be deposited thereon;
- (d) the ceiling or interior surface of the roof shall be so constructed as to ensure that it is practicable to remove dirt and dust easily from it.

3. *Materials*

The premises shall be constructed of durable and weatherproof material and having such other characteristics as will, having regard to the arrangements for ventilation, permit of an equable temperature being maintained within the building and not cause undue condensation on the internal walls and ceiling or interior surface of the roof.

4. *Ventilation*

Ventilation arrangements shall be provided in such a way as to ensure that the air in any room in which any milk is handled or milk product is manufactured or handled other than a room used solely for the storage of milk or milk products is kept in a fresh condition and to prevent undue condensation or accumulation of steam or vapours.

5. *Lighting*

Any room used for any process connected with the handling of any milk, or manufacture or handling of any milk product other than a room used solely

for the storage of milk or milk products shall be provided with such windows and other means of lighting including artificial lighting as will enable any process connected with milk or milk products to be carried out in good and proper light.

6. Approaches and Surroundings

The immediate approaches to and immediate surroundings of the premises shall be finished in a durable and impervious material capable of being easily cleaned.

SCHEDULE 4

Provisions Relating to the Manufacture of Skimmed Milk and Cream

PART 1

1. Skimmed Milk

(1) Subject to sub-paragraph (3), skimmed milk for despatch shall be manufactured as follows:—

- (a) The milk, immediately prior to separation and as part of a continuous process of pasteurisation and separation, shall be heated to and retained at a temperature of not less than 161° Fahrenheit (71.5° Centigrade) for a period of at least 15 seconds or heated to not less than 185° Fahrenheit (85° Centigrade); or
- (b) the skimmed milk, immediately after separation and as part of a continuous process of separation and pasteurisation, shall be heated to and retained at a temperature of not less than 161° Fahrenheit (71.5° Centigrade) for a period of at least 15 seconds or be heated to a temperature of not less than 185° Fahrenheit (85° Centigrade)

and shall be cooled immediately to a temperature of not more than 45° Fahrenheit (7° Centigrade) and maintained at that temperature until it is despatched.

- (2) (a) The temperature to which skimmed milk or milk from which skimmed milk is manufactured is heated shall be automatically controlled.
- (b) Any apparatus in which milk is to be pasteurised in accordance with sub-paragraph (1)(a) or skimmed milk is to be pasteurised in accordance with sub-paragraph (1)(b) shall be provided with a device which shall automatically divert the flow of any milk or skimmed milk as the case may be which is not retained at a temperature of at least 161° Fahrenheit (71.5° Centigrade) or heated to 185° Fahrenheit (85° Centigrade) as the case may be and with a device which shall automatically record the operation of the flow diversion valve.
- (c) Such indicating and recording thermometers shall be installed in suitable places in the pasteurising apparatus as will indicate and record the temperature at which the milk or skimmed milk is heated or retained and to which it is cooled. The said thermometers shall be marked in graduations of 1° Fahrenheit or $\frac{1}{2}$ ° Centigrade, adequately spaced to give clear readings, and such record shall be dated and shall be retained for a period of not less than two months.
- (d) Such measures shall be taken as are adequate to ensure that any skimmed milk manufactured in accordance with this Schedule is kept apart from all other milk at all times except when it is in separate sealed containers. In particular, any vessel or apparatus which has been used for any milk, other than pasteurised whole milk or skimmed milk, shall be cleaned in accordance with these Regulations on each occasion before it is used for pasteurising skimmed milk or for the storage or handling of skimmed milk.

(3) The Ministry may specially authorise the sale of skimmed milk which has not been manufactured in accordance with this Part but which will be used by the buyer for the manufacture of a product, in the process of which it will be submitted to heat treatment not less effective than that prescribed in these Regulations.

PART 2

2. *Cream for sale for human consumption as cream*

Cream for sale for human consumption as cream shall be manufactured by:—

- (a) being separated, as part of a continuous process of pasteurisation and separation, from milk which has been heated to and retained at a temperature of not less than 161° Fahrenheit (71.5° Centigrade) for a period of at least 15 seconds or which has been heated to a temperature of not less than 185° Fahrenheit (85° Centigrade); or
- (b) being separated from milk and immediately thereafter as part of a continuous process of separation and pasteurisation heated to and retained at a temperature of not less than 163° Fahrenheit (73° Centigrade) for a period of at least 15 seconds or heated to a temperature of not less than 185° Fahrenheit (85° Centigrade)

and by being cooled immediately thereafter to a temperature of not more than 45° Fahrenheit (7° Centigrade).

PART 3

3. *Manufacturing Cream*

Manufacturing cream shall be manufactured by:—

- (a) being separated from milk which has been heated to not less than 185° Fahrenheit (85° Centigrade) as part of a continuous process of pasteurisation and separation; or
- (b) being separated from milk and immediately thereafter as part of a continuous process of separation and pasteurisation heated to and retained at a temperature of not less than 163° Fahrenheit (73° Centigrade) for a period of at least 15 seconds or heated to a temperature of not less than 185° Fahrenheit (85° Centigrade)

and by being cooled immediately thereafter to a temperature of not more than 45° Fahrenheit (7° Centigrade).

PART 4

4. *General*

(1) The temperature to which cream for sale for human consumption as cream or manufacturing cream or milk from which such cream is manufactured is heated shall be automatically controlled.

(2) Any apparatus in which such milk or cream is to be heated shall be provided with a device which shall automatically divert the flow of the milk or cream which is not retained at a temperature of at least 161° Fahrenheit (71.5° Centigrade) or 163° Fahrenheit (73° Centigrade) or heated to 185° Fahrenheit (85° Centigrade) as the case may be and with a device which shall automatically record the operation of the flow diversion valve. The provisions of this sub-paragraph, in so far as they relate to the diversion of the flow of cream, shall come into operation on 1st October 1967.

(3) Such indicating and recording thermometers shall be installed in suitable places in the pasteurising apparatus as will indicate and record the temperature at which the said milk or cream is heated or retained. The said thermometers shall be marked in graduations of 1° Fahrenheit or ½° Centigrade, adequately spaced to give clear readings and such record shall be dated and shall be retained for a period of not less than two months.

SCHEDULE 5

Ingredients used in the Manufacture of Cultured Buttermilk

PART 1

1. *Milk or skimmed milk processed on the premises where the cultured buttermilk is to be made*

Skimmed milk shall be processed in accordance with Part 1 of Schedule 4 and milk shall be processed in accordance with paragraph 2 of this Schedule except that the temperature to which the skimmed milk or milk as the case may be is cooled may exceed 45° Fahrenheit (7° Centigrade) if the starter culture is added within one hour from the time of heating.

2. *Milk or skimmed milk or natural unripened buttermilk purchased from another licence-holder*

Milk or skimmed milk or natural unripened buttermilk shall be heated to and retained at a temperature of not less than 161° Fahrenheit (71.5° Centigrade) for a period of at least 15 seconds or heated to a temperature of not less than 185° Fahrenheit (85° Centigrade) and unless the starter culture is added within one hour from the time of heating, it shall be cooled immediately to a temperature of 45° Fahrenheit (7° Centigrade) and retained at that temperature until not more than one hour prior to the addition of the starter culture.

3. *Reconstituted milk, skimmed milk or buttermilk*

Any milk, skimmed milk or buttermilk reconstituted from milk, skimmed milk or buttermilk powder shall immediately after reconstitution be heated to and retained at a temperature of not less than 161° Fahrenheit (71.5° Centigrade) for at least 15 seconds or heated to a temperature of 185° Fahrenheit (85° Centigrade) and unless the starter culture is added within one hour from the time of heating, it shall be cooled immediately to a temperature of 45° Fahrenheit (7° Centigrade) and retained at that temperature until not more than one hour prior to the addition of the starter culture.

PART 2

4. *Starter culture*

Any starter culture used for the manufacture of cultured buttermilk shall be prepared from milk or skimmed milk which has been heated to a temperature of not less than 190° Fahrenheit (88° Centigrade).

PART 3

5. *General*

(1) For the purposes of paragraphs 2 and 3 the temperatures to which heating is carried out shall be automatically controlled.

(2) Any apparatus in which milk, skimmed milk or buttermilk is to be heated shall be provided with a device which shall automatically divert the flow of any milk, skimmed milk or buttermilk as the case may be which is not retained at a temperature of at least 161° Fahrenheit (71.5° Centigrade) or heated to 185° Fahrenheit (85° Centigrade) as the case may be and with a device which shall automatically record the operation of the flow diversion valve.

(3) Such indicating and recording thermometers shall be installed in suitable places in the pasteurising apparatus as will indicate and record the temperature at which the milk, skimmed milk or buttermilk is heated and retained. The said thermometers shall be marked in graduations of 1° Fahrenheit or $\frac{1}{2}$ ° Centigrade, adequately spaced to give clear readings and such record shall be dated and shall be retained for a period of not less than two months.

SCHEDULE 6

Butter*Method of Manufacture*

1. Butter shall be made only from cream which—

- (a) has been produced in registered premises by being separated from milk which has been heated to a temperature of not less than 185° Fahrenheit (85° Centigrade) as part of a continuous process of heating and separation; or
- (b) has been produced in registered premises by being separated from milk and immediately thereafter—
 - (i) heated to a temperature of not less than 185° Fahrenheit (85° Centigrade); or
 - (ii) heated to and retained at a temperature of not less than 163° Fahrenheit (73° Centigrade) for 15 seconds; or
- (c) has been heated in registered premises to a temperature of not less than 185° Fahrenheit (85° Centigrade) or retained at a temperature of not less than 163° Fahrenheit (73° Centigrade) for 15 seconds

and for the manufacture of unripened cream butter it shall, unless otherwise authorised by the Ministry, be cooled immediately thereafter to a temperature not exceeding 45° Fahrenheit (7° Centigrade).

2.—(1) The temperature to which cream or milk from which cream is separated is heated shall be automatically controlled.

(2) Such indicating and recording thermometers shall be installed in suitable places in the apparatus in which the milk or cream is heated as will indicate and record the temperature at which the cream or milk is heated or retained. The said thermometers shall be marked in graduations of 1° Fahrenheit or $\frac{1}{2}$ ° Centigrade, adequately spaced to give clear readings and such record shall be dated and shall be retained for a period of not less than two months.

3. Any starter culture used for the ripening of cream for churning shall be prepared from milk or skimmed milk which has been heated to a temperature of not less than 190° Fahrenheit (88° Centigrade).

SCHEDULE 7

The Testing of Cans and Tankers

PART 1

TESTS FOR CANS

Provisions as to samples, treatment, and testing of rinse samples.

1. *Taking of Samples*

(1) The can selected for the test shall be in a good state of repair and in particular it shall be free from crevices, broken seams or welds and from adhered deposits or milk stone.

(2) Cans shall be tested by a rinsing technique. The rinse sample shall be taken, in accordance with sub-paragraph (3), on the premises where the can has been cleansed and within an interval of not less than half an hour and not more than one hour after cleansing.

(3) 500 millilitres of either a 0.9 per cent. by weight aqueous sodium chloride solution or one quarter strength Ringer's solution shall be poured over the inside of the lid into the can. The lid shall be replaced. The can shall be placed on its side and rolled until 12 revolutions have been completed. A sample of the solution shall then be transferred from the can to a sample bottle either by pouring or by

means of a dipper. If one quarter strength Ringer's solution is used it shall be made according to the following formula:—

Sodium chloride	9.0 grammes
Potassium chloride	0.42 gramme
Calcium chloride (Anhydrous)	0.24 gramme
Sodium bicarbonate	0.2 gramme
Distilled Water	4,000 millilitres

(4) The sampling containers, appliances and solutions shall be sterile.

2. Transport and holding of samples

(1) Samples shall be transported to the testing laboratory with the least possible delay. Unless the sample is to be delivered to the testing laboratory within two hours of the time of sampling, the sample shall be placed in an insulated box containing an adequate quantity of a suitable refrigerant for transport to the laboratory.

(2) On arrival at the laboratory, the sample shall be removed from the carrying box and, if the test is not then immediately begun, the sample shall be maintained at a temperature of not less than 2° Centigrade and not more than 5° Centigrade pending testing. Testing shall commence not later than the morning after the day of arrival of the sample at the testing laboratory.

3. Identification of Samples

(1) For the purpose of the identification of the rinse sample, the person taking it shall mark or label the bottle with a number or other suitable identification mark.

(2) There shall be entered in a book or on a paper, prior to or at the time of sampling, for the information of the testing laboratory, particulars to the following effect:—

- (a) the identification number or mark;
- (b) the platform number or other identification mark, if any, of the can from which the sample was taken;
- (c) name and registered number of premises on which the can was cleansed;
- (d) date and time of cleansing;
- (e) date and time of sampling; and
- (f) signature of the sampling officer.

4. Total Bacterial Count

(1) The rinse solution shall be tested for Total Bacterial Colony Count per millilitre as described in Schedule 8.

(2) The total bacterial count of the can shall be ascertained by multiplying the colony count per millilitre of rinse solution by 500.

PART 2

TESTS FOR TANKERS

Provisions as to samples, treatment and testing of swab samples.

5. Taking of Samples

(1) Tankers may be tested at any time after the tanker has been cleansed and—

- (a) where the tanker belongs to the licence-holder who cleansed it before it has been refilled;
- (b) in any other case, before it has left the premises where it has been cleansed.

(2) Tankers shall be tested by a swab technique.

6. Method of Swabbing

The method of swabbing employed shall be either Method A or Method B described in this paragraph:—

Method A

(1) The apparatus shall consist of:—

- (a) a stoppered test tube or bottle containing 25 millilitres of swab solution as described in paragraph 7;
- (b) 14 inches .104 (12 SWG) En 56 stainless steel wire, formed into a loop at one end, leaving a straight length 12 inches long;
- (c) 2 inch wide unmedicated ribbon gauze.

The swab shall consist of a 6 inch length of the gauze wound round the straight end of the wire and secured with thread.

(2) An area of not more than one square foot of any part of the interior surface of the tanker shall be swabbed by rubbing the gauze saturated with the sterile swab solution completely over it, the swab being rotated while it is being rubbed over the surface. The area to be examined shall be treated twice by the swab. The swab shall then be returned to the swab solution, thoroughly stirred and after expressing the liquid from the gauze by pressing it against the inner wall of the test tube or bottle, the swab shall be withdrawn and the test tube or bottle stoppered.

Method B

(1) The apparatus shall consist of:—

- (a) a screw-cap bottle, 28 ml. nominal capacity, with wide mouth;
- (b) a wooden stick approximately $14 \times 2 \times 0.2$ mm.;
- (c) $1\frac{1}{2}$ inch wide unmedicated ribbon gauze.

The swab shall consist of a 6 inch length of the gauze wound round one end of the stick and secured by means of thread or staple.

(2) An area of not more than one square foot of any part of the interior surface of the tanker shall be swabbed by rubbing the gauze saturated with the sterile swab solution completely over it, the swab being rotated while it is being rubbed over the surface. The area to be examined shall be treated twice by the swab. The swab shall then be returned to the swab solution and the stick broken below the finger grip. The bottle shall then be stoppered.

(3) (a) The bottle shall contain 20 ml. sterile swab solution.

(b) The swab shall be wrapped in genuine greaseproof paper.

7. Swab Solution

The swab solution shall be either 0.9 per cent. by weight aqueous sodium chloride solution or one quarter strength Ringer's solution made according to the formula described in paragraph 1 of Part 1 of this Schedule, subject to the following amendments:—

- (1) When an approved chlorine or iodine compound has been used for sterilising the tanker the swab solution shall contain 0.05 per cent. by weight of sodium thiosulphate.
- (2) When an approved detergent sterilising agent containing a quaternary ammonium compound has been used for cleansing the tanker the swab solution shall contain a suitable inactivating agent.

8. Identification of Samples

(1) For the purpose of the identification of the swab sample the person taking it shall mark or label the bottle with a number or other suitable identification mark.

(2) There shall be entered in a book or on a paper prior to or at the time of sampling, for the information of the testing laboratory, particulars to the following effect:—

- (a) identification number or mark;
- (b) name of owner of tanker and Registration number of vehicle;
- (c) name and registered number of premises at which the tanker was cleansed;
- (d) name of any chemical sterilising agent used, if any;
- (e) date and time of cleansing, if known;
- (f) place, date and time of sampling;
- (g) signature of sampling officer.

9. *Transport and holding of Samples*

Samples shall be transported and held as prescribed in Part 1 of this Schedule.

10. *Total Bacterial Count*

(1) The swab solution shall be tested for total bacterial colony count per millilitre as described in Schedule 8.

(2) The total bacterial count per square foot shall be ascertained by multiplying the colony count per millilitre of swab solution by 25 in Method A and by 20 in Method B.

SCHEDULE 8

Provisions as to Samples, Treatment and Testing of Samples

PART 1

THE TAKING OF SAMPLES

1. *Skimmed Milk*

(1) Samples may be taken on the day of production at any time after separation and pasteurisation and before delivery to the consignee.

(2) The skimmed milk from which the sample is to be taken shall be thoroughly stirred immediately before sampling. The sample shall be drawn from below the surface of the skimmed milk and transferred to a bottle which shall be immediately stoppered.

(3) The sampling containers and appliances shall be sterile.

2. *Cream for sale for human consumption as cream and Farm Bottled Cream*

(1) Samples may be taken not later than the day following the day of manufacture and before departure from the premises where it was manufactured or as the case may be where it was put into retail containers.

(2) When the cream is in containers not exceeding 1 pint in capacity, the sample shall consist of one such container which shall be delivered intact to the testing laboratory.

(3) When the cream is in containers exceeding 1 pint in capacity, it shall be thoroughly stirred immediately before sampling. The sample shall be drawn from below the surface of the cream and transferred to a bottle which shall be immediately stoppered.

(4) The sampling containers and appliances shall be sterile.

3. *Cultured Buttermilk*

(1) Samples may be taken at any time after the cultured buttermilk has been manufactured and before departure from the premises where it was manufactured.

(2) Where the buttermilk is in containers not exceeding 1 quart in capacity, the sample shall consist of one such container which shall be delivered intact to the testing laboratory.

(3) When the buttermilk is in containers exceeding 1 quart in capacity, it shall be thoroughly stirred immediately before sampling. The sample shall be drawn from below the surface of the buttermilk and transferred to a bottle which shall be immediately stoppered.

(4) The sampling containers and appliances shall be sterile.

4. *Transport and Holding of Samples*

(1) Samples shall be transported to the testing laboratory with the least possible delay. Unless the sample is to be delivered to the testing laboratory within two hours of the time of sampling, the sample shall be placed in an insulated box containing an adequate quantity of a suitable refrigerant for transport to the laboratory.

(2) On arrival at the laboratory, the sample shall be removed from the carrying box and, if the test is not then immediately begun, the sample shall be maintained at a temperature of not less than 2° Centigrade and not more than 5° Centigrade pending testing. Testing shall commence not later than the morning after the day of arrival of the sample at the testing laboratory.

5. *Identification of Samples*

(1) For the purpose of the identification of the sample, the person taking it shall mark or label the bottle with a number or other suitable identification mark.

(2) There shall be entered in a book or on a paper, prior to or at the time of sampling, for the information of the testing laboratory, particulars to the following effect:—

- (a) the identification number or mark;
- (b) the name and address and registered number, if any, of the premises on which the product was processed or manufactured;
- (c) the place, date and time of sampling;
- (d) particulars of the vessel from which the sample was taken;
- (e) the signature of the sampling officer.

PART 2

THE TESTS

6. *Sterilisation*

For the purpose of the Total Bacterial Colony Count and Coliform Tests prescribed in the Schedule all glassware, stoppers, metal caps and media shall be sterile.

7. *Preparation of Dilutions for Total Bacterial Colony Count and Coliform Tests Apparatus:*

- (1) Pipettes shall be 1.0 millilitre straight-sided blow-out delivery pipettes.
- (2) Dilution tubes or flasks shall be stoppered by means of a solid stopper or tightly fitting cover.

Diluent:

The diluent shall be either 0.9 per cent. by weight aqueous sodium chloride solution or one quarter strength Ringer's solution made according to the following formula:—

Sodium chloride	9.0 grammes
Potassium chloride	0.42 gramme
Calcium chloride (Anhydrous)	0.24 gramme
Sodium bicarbonate	0.2 gramme
Distilled water	4,000 millilitres

8. Method of Making Dilutions

(1) To make a 1 in 10 dilution of skimmed milk, buttermilk or tanker swab solution, the sample of the said skimmed milk, buttermilk or tanker swab solution, shall be thoroughly mixed. A 1.0 millilitre pipette shall be introduced into the sample container with its tip reaching not more than 1 inch below the surface of the contents. The contents shall be sucked into the pipette and a 1.0 millilitre quantity measured holding the pipette in the vertical position. The pipette shall be withdrawn the tip being touched against the inside of the neck of the container. It shall then be introduced into a dilution tube or flask containing sterile diluent of a volume not less than 8.9 millilitres and not more than 9.1 millilitres with the tip touching the side of the tube or flask at a point $\frac{1}{2}$ to 1 inch above the level of the diluent without the pipette coming into contact with the diluting fluid. The contents of the pipette shall then be blown out, 3 seconds shall be allowed to lapse for drainage and the remaining contents blown out. After this addition the contents of the dilution tube or flask shall be thoroughly mixed by shaking through a distance of 1 foot, six times.

(2) To make a 1 in 10 dilution of Farm Bottled Cream or cream for sale for human consumption as cream, the cream sample shall be placed intact into a water bath maintained at a temperature of not less than 35° Centigrade and not more than 40° Centigrade for a period of not less than 20 minutes and of not more than 30 minutes. The sample shall be well mixed and 10 grammes shall then be weighed into a dilution flask containing not less than 89 millilitres and not more than 91 millilitres of diluent at a temperature of not less than 35° Centigrade and not more than 40° Centigrade and the contents thoroughly mixed.

(3) To make a 1 in 100 dilution of Farm Bottled Cream, buttermilk or swab solution, 1.0 millilitre of a 1 in 10 dilution shall be transferred to a dilution tube or flask containing not less than 8.9 millilitres and not more than 9.1 millilitres of diluent in a manner similar to that described in sub-paragraph (1) and the contents of the tube or flask shall be thoroughly mixed in like manner.

(4) To make a 1 in 1,000 dilution of Farm Bottled Cream, 1 millilitre of a 1 in 100 dilution shall be transferred to a dilution tube or flask containing not less than 8.9 millilitres and not more than 9.1 millilitres of diluent in a manner similar to that described in sub-paragraph (1) and the contents of the tube or flask shall be thoroughly mixed.

(5) A fresh pipette shall be used for the preparation of each dilution.

9. The Coliform Test

Apparatus:

- (1) Pipettes shall be 1.0 millilitre straight-sided blow-out delivery pipettes and 10.0 millilitres straight-sided delivery pipettes.
- (2) Culture medium tubes for testing skimmed milk or buttermilk shall comply with British Standard 625:1959, 150/16.
- (3) Culture medium tubes for testing cream shall comply with British Standard 625:1959, 150/19.
- (4) Each culture medium tube shall contain an inverted Durham tube conforming to British Standard 625:1959, 35/8.

10. Medium

MacConkey broth made according to the following formulae shall be used:—

(1) Single Strength MacConkey broth

Bile Salts	5 grammes
Lactose	10 grammes
Peptone	20 grammes
Sodium Chloride	5 grammes
Distilled Water	1,000 millilitres
Bromo-cresol purple (1.6 per cent. alcoholic solution)	2 millilitres

The medium shall have a final pH of 7.0-7.2.

(2) Double Strength MacConkey broth

Bile Salts	10 grammes
Lactose	20 grammes
Peptone	40 grammes
Sodium chloride	10 grammes
Distilled Water	1,000 millilitres
Bromo-cresol purple (1.6 per cent alcoholic solution)	4 millilitres

The medium shall have a final pH of 7.0-7.2.

11. Method of Testing

After mixing, a 1 millilitre portion of a 1 in 10 dilution of skimmed milk or of a 1 in 100 dilution of buttermilk shall be transferred by means of a fresh pipette to each of 3 culture tubes as described in paragraph 9(2) and containing about 5 millilitres of Single Strength MacConkey broth, using the same technique as described in paragraph 8(1) except that the culture tubes shall not be shaken after the addition of the dilution. The culture tubes shall be incubated at 30° Centigrade $\pm 1^\circ$ Centigrade for 72 hours and examined for acid and gas production. Cream for sale for human consumption as cream shall be tested in a similar manner except that 10 millilitres of the 1 in 10 dilution shall be transferred using a pipette to each of 3 culture tubes as described in paragraph 9(3) and containing about 10 millilitres of Double Strength MacConkey broth.

12. Interpretation

The sample shall be regarded as satisfactory if 2 out of 3 tubes are found to be free from acid and gas after incubation at 30° Centigrade $\pm 1^\circ$ Centigrade for 72 hours.

13. Total Bacterial Colony Count

Apparatus:

(1) Pipettes shall be 1.0 millilitre straight-sided blow-out delivery pipettes.

(2) Petri dishes shall comply with British Standard 611:1952.

Medium:

The culture medium shall be prepared in accordance with the following formula or with such other formulae as the Ministry may approve:—

Yeast extract	3 grammes
Peptone	5 grammes
Agar-agar	12-20 grammes
Fresh skimmed milk or equivalent	10 millilitres
Distilled water	1,000 millilitres

The medium shall have a final pH of 7.0-7.2.

14. Method of Testing

(1) After thorough mixing a fresh pipette shall be introduced into the sample of the can rinse solution or into the 1 in 100 dilution of tanker swab solution or into the 1 in 1,000 dilution of Farm Bottled Cream and a 1 millilitre portion measured with the pipette held in the vertical position. The tip of the pipette shall be touched against the side of the dilution flask. The contents of the pipette shall be blown out gently into the centre of a Petri dish, the tip of the pipette being held about $\frac{1}{2}$ inch above the level of the bottom of the dish. Three seconds shall be allowed to lapse, the tip of the pipette shall then be touched against the dish at a point some distance from the fluid already delivered, and the last drop blown out.

(2) A volume of about 11 millilitres of the culture medium which shall have been melted and cooled to about 45° Centigrade shall be delivered under aseptic conditions into the Petri dish and immediately thereafter the contents of the dish shall be mixed.

(3) Mixing shall consist of 5 to-and-fro movements, followed by 5 circular clockwise movements, followed by 5 to-and-fro movements at right angles to

the first set of movements, followed by 5 circular anti-clockwise movements. The mixing procedure shall last for 5 to 10 seconds, the Petri dish being kept flat on the bench throughout the whole process. The time which shall elapse between the preparation of the dilution and the pouring of the Petri dishes shall not exceed 15 minutes.

(4) (a) The plates shall be incubated bottom upwards at 30° Centigrade $\pm 1^\circ$ Centigrade for 3 days.

(b) Colonies on the dishes shall be counted within four hours of removal from the incubator. A specially constructed box allowing of examination of the dishes by combined reflected and transmitted light against a dark background shall be used. To facilitate counting, a lens not exceeding a magnification of $\times 2\frac{1}{2}$ diameters shall be used.

(5) The bacterial count per millilitre or per gramme of the sample shall be ascertained by multiplying the total colony count per Petri dish by the reciprocal of the dilution used in the test.

15. The Phosphatase Test

All samples shall be brought to room temperature immediately before being tested.

The following precautions shall be taken:—

- (1) Samples which show a taint or clot on boiling shall not be tested.
- (2) Phenols, disinfectants and detergents containing phenols and soap containing carbolic acid shall be kept apart from the test reagents and apparatus.
- (3) Bottle-caps made from phenolic resin shall not be used.
- (4) Rubber stoppers shall not be used until they have been shown by test not to contain phenolic impurities.
- (5) Pipettes shall not be contaminated with saliva.
- (6) All reagents shall be kept in a cool, dark place and shall be well protected from dust.
- (7) Tests shall not be carried out in direct sunlight.
- (8) Freshly boiled distilled water shall be used throughout.

16. Apparatus

The following apparatus shall be used:—

- (1) A water bath maintained at 37° Centigrade $\pm 1^\circ$ Centigrade by a reliable automatic thermostat.
- (2) A pipette or automatic burette to deliver 5 millilitres.
- (3) A supply of 1.0 millilitre pipettes as described in paragraph 7(1).
- (4) A supply of test tubes complying with British Standard 625:1959, 150/16, with stoppers to fit.
- (5) Graduated flasks of suitable sizes.
- (6) A Lovibond "all-purposes" comparator with a disc containing standard coloured glasses corresponding to 0, 6, 10, 18, 42 ug. paranitrophenol per millilitre of milk.

New glassware shall be cleaned in a strong chromic acid solution. After cleaning it shall be thoroughly rinsed with hot water and then with distilled water and dried by evaporation.

After use each item of glassware shall be well washed with hot water containing soda, rinsed with hot clean water and then soaked for 24 hours in chromic acid. The glassware shall then be thoroughly rinsed with water and then with distilled water and dried by evaporation.

Glassware used for this test shall not be used for any other purpose and shall be kept apart from all other apparatus in the laboratory and shall be protected from dust.

17. Reagents

(1) The reagents shall be of analytical reagent quality.

(2) Buffer solution—the solution shall be prepared by dissolving 3.5 grammes of anhydrous sodium carbonate and 1.5 grammes of sodium bicarbonate in glass-distilled water and by making the solution up to one litre with glass-distilled water.

(3) Buffer substrate solution—the solution shall be prepared by dissolving 0.15 gramme disodium paranitrophenol ortho-phosphate in the buffer solution and by making the solution up to 100 millilitres with buffer solution. The buffer substrate solution shall be stored at not less than 2° Centigrade and not more than 5° Centigrade and shall not be used after seven days from the date of preparation. The buffer substrate solution shall be checked before use in the Lovibond “all-purposes” comparator with a cell of 25 millimetres depth and shall give no appreciable colour.

18. Methods of Testing

Using a pipette or an automatic burette transfer 5 millilitres of the buffer substrate solution to a test tube. The tube shall be stoppered and placed in a water bath maintained at a temperature of 37° Centigrade $\pm 1^\circ$ Centigrade. After not less than 3 minutes 1 millilitre of the well mixed skimmed milk sample shall be added, the tube closed with a rubber stopper and the contents well mixed by shaking. After incubation at 37° Centigrade $\pm 1^\circ$ Centigrade for 120 minutes the tube shall be removed from the water bath and placed without delay in the Lovibond comparator after thorough mixing, and the degree of colour measured using disc described in paragraph 16(6). The measurement shall be made in daylight or under a source of fluorescent light. A sample of boiled skimmed milk shall be tested at the same time and in a similar manner and if the colour measurement exceeds that of disc 0 the result of the test shall be void.

SCHEDULE 9

Number	Short Title
S.R. & O. (N.I.) 1931 No. 23	Marketing of Dairy Produce (Surprise Inspections of Butter) Rules (N.I.) 1931
S.R. & O. (N.I.) 1932 No. 50	Marketing of Dairy Produce Amendment No. 2 Rules (N.I.) 1932.
S.R. & O. (N.I.) 1934 No. 15	Marketing of Dairy Produce Rules (N.I.) 1934.
S.R. & O. (N.I.) 1937 No. 40	Marketing of Dairy Produce (Marketing of Cream) Rules (N.I.) 1937.
S.R. & O. (N.I.) 1965 No. 135	Marketing of Milk Products Regulations (N.I.) 1965.

EXPLANATORY NOTE

(This note is not part of the Regulations, but is intended to indicate their general purport.)

These Regulations prescribe:—

- (1) The minimum standard required for the registration of premises for the manufacture of milk products.
- (2) The conditions to be observed in the receipt of milk from farms.
- (3) The method of manufacture, packing and standards of quality of skimmed milk, buttermilk, cream and farm bottled cream.