
International Standard 8086

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Dairy plant — Hygiene conditions — General guidance on inspection and sampling procedures

Usine laitière — Conditions sanitaires — Directives générales pour les méthodes de contrôle et d'échantillonnage

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8086 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*.

NOTE — The text of this International Standard has been developed jointly with the International Dairy Federation (IDF) and the Association of Official Analytical Chemists (AOAC) and will also be published by these organizations.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Dairy plant — Hygiene conditions — General guidance on inspection and sampling procedures

0 Introduction

The principal reason for checking plant hygiene is to ensure that the plant will not contaminate the product; however, if contamination has taken place, it is possible to discover where in the circuit bacteriological infection, chemical contamination or contamination from filth has taken place. Such checks will be necessary not only to ensure quality control requirements within the plant but also to ensure compliance of products with legal requirements. Also, the checks give information on the checking and sampling procedures used to endorse the practices adopted to ensure cleanliness of the plant.

There are three types of checks on the effectiveness of cleaning and disinfection for which sampling might be performed:

- a) checking all contact surfaces which have to be cleaned after and shortly before the production process, and checking re-usable product containers (bottles, moulds, etc.) which have to be cleaned and which will hold the finished product intended for sale;
- b) indirect checking on solutions or methods used for cleansing; such checks will concern principally the different operations carried out to ensure that optimum cleanliness is maintained;
- c) checking the raw materials or semi-finished products in the course of preparation or of finished products; in practice, such checks give a good idea of the quality of cleansing but they are ancillary to the quality of the raw material used and, in some cases, to the standard of hygiene of the operators of the plants.

1 Scope and field of application

This International Standard lays down general guidelines for inspection and sampling procedures to be employed to check the effectiveness of cleaning and disinfection methods used in dairy plants and receiving stations, including milk-collection tankers.

It deals with

- visual inspection;
- sampling from plant surfaces (product line, bottle washing equipment, containers, etc.);
- re-usable product containers;
- air;

- sampling of water and aqueous solutions other than those added to the product;
- sampling of raw materials and products.

It does not deal with equipment normally installed in farms, for example milking machinery or refrigerated bulk milk tanks, nor does it deal with the equally important areas of health and hygiene of personnel, factory environment, internal arrangement of the factory, methods of cleaning, packaging materials brought in new from outside (paper, cardboard, plastic, new bottles, etc.), food ingredients and additives, selection of number of units and treatment of the sample in the laboratory.

The need for sampling should have been considered in the design of plant. It is important that any devices which are included to enable samples to be taken are so designed and fitted that their use results in representative samples being obtained without any adverse effect on the hygiene condition of the plant (for example by introducing dead spots in cleaning circuits). Such design is outside the scope of this International Standard.

2 Reference

ISO 707, *Milk and milk products — Methods of sampling*.

3 General instructions

3.1 The demands for effectiveness of cleansing operations vary from plant to plant depending on management supervision, quality control requirements and type of production undertaken.

3.2 A cleansing control should not be based solely on the results of microbiological tests even if such checks are clearly of prime importance; other checks such as visual inspection, smell and touch, chemical and/or physical analysis and intelligent interpretation of records, are important in order not to overlook such factors as visible residues, malfunction of equipment, cleaning residues and corrosion.

3.3 Sampling for microbiological examination should be carried out only by personnel trained in sampling for this purpose.

3.4 The frequency of sampling depends essentially on the type of manufacture, the means of checking available to the organization, and the costs acceptable to the organization in carrying out the checking. In theory, a check should be carried