

**Business Facilitation Advisory Committee
Wholesale and Retail Task Force**

Microbiological Guidelines for Food

Purpose

This paper briefs members on the Microbiological Guidelines for Food issued by the Centre for Food Safety (CFS), which came into effect on 14 August 2014.

Background

2. In Hong Kong, the relevant food safety regulation is laid down in the Public Health and Municipal Services Ordinance, Cap 132. Legal microbiological standards for some specified foods (e.g. frozen confections and milk) are stipulated in its subsidiary legislation.

3. The purpose of the microbiological guidelines is to provide assistance to officers in the interpretation of microbiological analyses of foods and give recommendations on the appropriate follow-up action to monitor and control food safety. It also serves to facilitate the trade in devising measures to improve their food safety practices. Microbiological guidelines include criteria indicating the microbiological condition of the food items when there are no established microbiological standards. They also supplement any existing legislative microbiological standards so as to reflect the safety and hygienic quality of the food.

4. In order to keep the local microbiological guidelines abreast of the international development and advancement of food science and technology, an Ad Hoc Working Group on Microbiological Safety of Food 2011 (the Working Group) was formed under the Expert Committee on Food Safety to provide professional advice on the review of the Microbiological Guidelines for Ready-to-eat Food based on the latest situation.

5. During the amendment process, local stakeholders including trade were consulted. Since the revised microbiological guidelines include criteria for both ready-to-eat and non-ready-to-eat food (e.g. powdered infant formula), the title of the document was changed to Microbiological Guidelines for Food (the Guidelines). The Guidelines were then endorsed by the Expert Committee and submitted to the World Trade Organization for notification.

The Guidelines are now available at the CFS website (http://www.cfs.gov.hk/english/food_leg/files/food_leg_Microbiological_Guidelines_for_Food_e.pdf).

Microbiological Guidelines for Food

6. The Guidelines include 3 chapters:
 - (a) Chapter I covers microbiological criteria for ready-to-eat food in general – aerobic colony count (ACC) and hygienic indicator organisms;
 - (b) Chapter II covers microbiological criteria for ready-to-eat food in general – specific foodborne pathogens; and
 - (c) Chapter III covers microbiological criteria for specific food items.

7. Information on the Common Foodborne Pathogens and the Guidance Notes on Sampling Plan for Microbiological Analysis are supplemented in the appendixes of the Guidelines for reference.

Chapters I and II

8. Microbiological criteria in Chapters I and II are intended for assessing the microbiological quality of ready-to-eat food¹ in general. These criteria were based on the Microbiological Guidelines for Ready-to-eat Food and revised with reference to the Guidelines for Assessing the Microbiological Safety of Ready-to-eat Foods Placed on the Market published by the Health Protection Agency in the United Kingdom as well as the advice from the Working Group after taking local situation into consideration.

9. Criteria for (i) aerobic colony count (ACC) and indicator organisms – *E. coli* and Enterobacteriaceae as well as (ii) ten specific foodborne pathogens in ready-to-eat food in general are listed in Chapters I and II respectively.

10. The microbiological assessment of ready-to-eat food on the above three components will lead to the classification of microbiological quality into one of the following three classes:

¹ “Ready-to-eat food” means food intended by the producer or the manufacturer for direct human consumption without the need for cooking or other processing effective to eliminate or reduce to an acceptable level the microorganisms of concern.

- (a) **Satisfactory:** test results indicating good microbiological quality.
- (b) **Borderline:** test results that are not unsatisfactory but are also not satisfactory, are on the upper limit of acceptability and which indicate the potential for development of public health problems and of unacceptable risk.
- (c) **Unsatisfactory:** For ACC, test results which indicate investigating reasons for high count may be considered. For hygiene indicator organisms, test results that require remedial action. For pathogens, test results at levels which indicate a product that is potentially injurious to health and/or unfit for human consumption and require immediate remedial action.

11. Suggested actions to be taken by officers for each class (i.e. satisfactory, borderline and unsatisfactory) in response to the results of ACC, hygiene indicator organisms and specific foodborne pathogens in ready-to-eat food in general are also provided in the Guidelines for reference.

12. As compared with the Microbiological Guidelines for Ready-to-eat Food, major amendments include (i) changes to the food categorisation for ACC assessment (i.e. the food categorisation moves away from specific food commodities to degree of processing and the raw ingredients used), (ii) addition of Enterobacteriaceae as an indicator organism to assess the general hygiene status of food, (iii) amending the nomenclature of specific foodborne pathogens to include only the high risk serotype/strain and (iv) incorporating the criteria for *Shigella* spp.

Chapter III

13. Chapter III covers the microbiological criteria for specified food items (i.e. bottled waters, edible ice, non-bottled drinks, powdered formulae for infants and young children, ready-to-eat spices and bivalve molluscs intended for direct consumption) based on the Supplementary Information to Microbiological Guidelines for Ready-to-eat Food and the latest version of relevant Codex standard and Code of Hygienic Practices

14. Any food samples failing any of the microbiological criteria stipulated in Chapter III will be considered as “Unsatisfactory: Potentially injurious to health and/or unfit for human consumption”. In other words, the affected products should be prevented from being released for human consumption.

15. In order to keep the Guidelines abreast of the international practice, it is noted that a more stringent *E. coli* limit for bivalve molluscs intended for direct consumption has been implemented.

Trade Facilitation and Publicity Programmes

16. To promulgate and facilitate the trade to familiarise with the Guidelines, which superseded those previously issued, a trade seminar was conducted on the effective day of the Guidelines (i.e. 14 August 2014). In addition, letters were sent to relevant stakeholders to ensure that they are aware of the Guidelines. A dedicated set of Q & As on Microbiological Guidelines for Food has also been uploaded to the CFS website to facilitate the understanding of the Guidelines.

17. Food trade can make use of the microbiological criteria stipulated in the Guidelines to assess the acceptability, including the safety and quality of their products. In general, it is not necessary to test all foods for all parameters listed in the Guidelines. In order to obtain meaningful information and to make best use of resources, only tests relevant to a particular food is recommended to be carried out. The decision on what analysis to be carried out on a particular food should be based on the significance of each microorganism to that food.

Advice Sought

18. Members are invited to note the information provided in this paper and offer comments, if any.

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