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**CERTIFICATION AND ACCREDITATION INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

RB/T 038-2020

**Guidelines for Quality Control of Food Microbiological Test
Results
(English Translation)**

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Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative references	
3 Terms and definitions	
4 General	
5 Quality control planning	
5.1 Quality control plan	
5.2 Quality control method	
5.3 Quality control sample	
5.4 Frequency of quality monitoring	
5.5 Predetermined evaluation basis	
6 Implementation of quality control	
6.1 Obtaining samples	
6.2 Distribution of samples	
6.3 Testing of samples	
7 Statistical analysis and evaluation of quality monitoring results	
7.1 General	
7.2 Statistical analysis and evaluation of internal quality monitoring results	
7.3 Statistical analysis and evaluation of external quality monitoring results	
8 Processing of quality control results	
Appendix A (informative appendix) Food microbiological quality monitoring plan example	
Appendix B (informative appendix) Some examples of performance characteristics stipulated by standard methods for microbiological testing of food	
Appendix C (informative appendix) Construction example of single value control chart and moving range control chart for quantitative detection of <i>Staphylococcus aureus</i> in milk	
Appendix D (informative appendix) Statistical analysis example of comparison test between microbiology laboratories	
References	

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009:

This standard was proposed and managed by the National Certification and Accreditation Administration Committee:

Drafting organizations of this standard: Qingdao Customs Technology Center, National Food Safety Risk Assessment Center, Harbin Customs Technology Center, Shaanxi Provincial Food Products and Drug Administration, China Academy of Inspection and Quarantine, Guangzhou Customs Inspection and Quarantine Technology Center, China National Conformity Assessment Center, Hunan Food Quality Supervision and Inspection Research Institute, Tianjin Food Safety Testing Technology Research Institute, Shenyang Food and Drug Inspection Institute, Japan According to the Customs Technology Center, Shengyuan Nutritional Food Co., Ltd., Nuoan Zhike Commodity Inspection (Shanghai) Co., Ltd., Hunan Province Product Quality Supervision Supervise the inspection institute:

Introduction

This standard provides the planning, implementation, statistical analysis and evaluation of the quality monitoring of food microbiological testing results, as well as the operation of result processing Guide, this standard applies to laboratories to carry out food microbiological test results quality monitoring activities:

The operating mode of this standard is shown in Figure 1:

Figure 1 Operation mode diagram of quality monitoring of food microbiological test results

The general rule (4) of this standard is a general provision of the technical operation content of this standard, and is the overall requirement for the quality control of food microbiological test results:

begging: This standard is based on the planning-implementation-inspection-improvement (PDCA) operation mode, with the following meanings:

Planning (5): According to the General Provisions (4), the laboratory has a quality control plan (5:1), quality control methods (5:2), quality control samples (5:3), quality the monitoring frequency (5:4) and the predetermined evaluation basis (5:5) are planned: Refer to the examples in Appendix A and Appendix B to determine and document the the quality control plan will be implemented after management approval:

Implementation (6): With the support of resources, obtain samples (6:1), distribute samples (6:2) and test samples in accordance with a documented quality monitoring plan (6:3): Record the result data of quality control samples: The method of recording the result data should be easy to find its development trend, if feasible, should be adopted Statistical technical review results:

Inspection (7): Perform statistical analysis and evaluation of the quality monitoring results according to the specified requirements: Statistical analysis and evaluation of quality monitoring results Including the statistical analysis and evaluation of internal quality monitoring results (7:2) and the statistical analysis and evaluation of external quality monitoring results (7:3): Analysis and the evaluation should consider the evaluation basis in the planning plan, as well as the number of participants and possible differences in different testing methods:

Appendix C gives an example of quality control chart construction, and Appendix D gives an example of statistical analysis of comparison experiments between microbiology laboratories:

Improvement (8): The laboratory conducts risk management for the problems identified by internal quality control and external quality control, seeks and takes Measures to continuously improve the overall performance of food microbiological testing results quality monitoring:

Guidelines for Quality Monitoring of Food Microbiological Test Results

1 Scope

This standard gives the general principles, planning, implementation, statistical analysis and evaluation of the quality control of food microbiological testing results, and the results processing Operation guide:

This standard applies to laboratories to carry out food microbiological testing results quality monitoring activities: Microbiology laboratories in other fields can refer to use:

2 Normative references

The following documents are indispensable for the application of this document: For dated reference documents, only the dated version applies to this article Pieces: For undated references, the latest version (including all amendments) applies to this document:

GB 4789.3-2016 National Food Safety Standard Food Microbiological Inspection Coliform Count GB/T 4882-2001 Data Statistical Processing and Interpretation Normality Test GB/T 4883-2008 Statistical processing and interpretation of data Judgment and processing of outliers in normal samples GB/T 27405-2008 Laboratory Quality Control Specification Food Microbiological Testing GB/T 28043-2011 Statistical methods for proficiency testing using inter-laboratory comparisons ISO 4833-1:2013 Food chain microbial count level method Part 1: 30 °C agar plate colony count (Microbiologyofthefoodchain-Horizontalmethodfortheenumerationofmicroorganisms-Part 1: Colonycountat30°Cbythepourplatetechnique) ISO 9308-1:2014 Water quality Technical enumeration of Escherichia coli and coliforms-Part 1: Membrane filtration method for water

with low background bacteria

(Water quality-Enumeration of Escherichia coli and coliform bacteria-Part 1: Membrane filtration method for waters with low bacterial background flora)

3 Terms and definitions

Some terms and definitions defined in GB/T 27405-2008 and JJF1645-2017, as well as the following terms and definitions apply to this file:

Standard strain reference strain Strains defined at least at the genus or species level:

Classified and described according to its characteristics, there is a clear source:

[GB/T 27405-2008, definition 3:10]:

Target microorganism

The microorganisms designated as analysis targets in the quality control samples:

Note: Quality control samples include certified reference materials/standard samples (if certified standard strains), reference materials/standard samples (such as standard strains), and quality control samples (Such as spiked samples, natural contamination samples, isolated wild strains) etc:

Background flora One or more microorganisms that are naturally present or artificially added in the quality control sample that compete with or are similar to the target microorganism: