

NSF Food Safety and Quality – 2002

Application of ISO 9000 and HACCP requirements to global food and beverage industries

NSF Food Safety and
Quality – 2002



NSF International, an independent, not-for-profit, non-governmental organization, is dedicated to being the leading global provider of public health and safety-based risk management solutions while serving the interests of all stakeholders.

This Guideline is subject to revision.
Contact NSF to confirm this revision is current.

Users of this Guideline may request clarifications and interpretations, or propose revisions by contacting:

NSF International
Food Safety Systems
789 North Dixboro Road, P.O. Box 130140
Ann Arbor, Michigan 48113-0140 USA
Phone: (734) 769-8010 Telex: 753215 NSF INTL
FAX: (734) 769-0109
E-mail: info@nsf.org
Web: <http://www.nsf.org>

NSF Food Safety and Quality – 2002

NSF International
Guideline for Food Safety and Quality —

**Application of ISO 9000 and HACCP
requirements to global food
and beverage industries**

Standard Developer
NSF International

Adopted June 20, 2002
NSF International

Prepared by
Food Safety and Quality Advisory Committee

Adopted 1996

Revised June 2002

Published by

NSF International
PO Box 130140, Ann Arbor, Michigan 48113-0140, USA

For ordering copies or for making inquiries with regard to this Guideline, please reference the designation "Application of ISO 9000 and HACCP requirements to global food and beverage industries – 2002."

Copyright 2002 NSF International
Previous edition © 1996

Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from NSF International.

Printed in the United States of America.

NSF International

NSF is incorporated under the laws of Michigan as a not-for-profit organization devoted to research, education, and service. It seeks to provide risk management solutions involving public health, safety and protection of the environment. It strives to promote health and enrich quality of life. NSF's fundamental principle of operation is to serve as a neutral medium in which business and industry, official regulatory agencies, and the public come together to develop solutions involving products, equipment, procedures, and services related to health and the environment. It is conceived and administered as a public service organization.

NSF is perhaps best known for its role in facilitating the development of Standards and Criteria for equipment, products, and services that bear upon health. NSF conducts research; tests and evaluates equipment, products, and services for compliance with Standards and Criteria; and grants and controls the use of NSF registered Marks.

NSF provides food safety and quality risk management solutions. NSF's Cook & Thurber division is a leading provider of comprehensive food safety services for the food, beverage, animal feed, and packaging industries. NSF-Cook & Thurber offers thorough understanding of the food industry and its issues, needs and requirements.

In the retail food service industry, NSF is a leader in providing audits covering food safety, quality, and work place safety. NSF develops customer-specific audit criteria and guidelines to meet customer needs. Audit data is collected and reported electronically through a secure web site.

The NSF-FreshCheck™ Program is a comprehensive risk based management solution designed to meet the specific needs of the supermarket industry. The program includes three interlocking services: sanitation audits, microbial monitoring, and FastCheck™ -- a rapid response program to identify and respond to alleged food related illnesses. By combining these three services, NSF customers are provided with a powerful system that complements and supports in-house quality assurance and loss prevention efforts.

NSF offers product certification (Listing Services) for all products covered by its Standards. Each program has established policies governing the associated product evaluation, Listing Services and follow-up, and enforcement activities. The NSF Listing Mark is widely recognized as a sign that the product or service to which it relates complies with the applicable NSF Standard(s).

Disclaimers

NSF International (NSF), in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. The opinions and findings of NSF represent its professional judgment. NSF shall not be responsible to anyone for the use of or reliance upon this Guideline by anyone. NSF shall not incur any obligation or liability for damages, including consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guideline.

NSF Standards provide basic criteria to promote sanitation and protection of the public health. Provisions for mechanical and electrical safety have not been included in this Guideline because governmental agencies or other national standards-setting organizations provide safety requirements.

Participation in NSF's Standards development activities by regulatory agency representatives (federal, local, state) shall not constitute their agency's endorsement of NSF or any of its Standards.

Preference is given to the use of performance criteria measurable by examination or testing in NSF Standards development when such performance criteria may reasonably be used in lieu of design, materials, or construction criteria.

The illustrations, if provided, are intended to assist in understanding their adjacent standard requirements. However, the illustrations may not include **all** requirements for a specific product or unit, nor do they show the only method of fabricating such arrangements. Such partial drawings shall not be used to justify improper or incomplete design and construction.

Unless otherwise referenced, the annexes are not considered an integral part of NSF Standards. The annexes are provided as general guidelines to the manufacturer, regulatory agency, user, or certifying organization.

Contents

1	General.....	1
1.1	Organizational goals.....	1
1.2	Meeting company/customer needs	1
1.3	Risks, costs and benefits.....	2
2	Scope and field of application	2
3	Definitions and references.....	3
3.1	Definitions.....	3
3.2	References	4
4	System guidelines	5
4.1	Documentation requirements	5
5	Management responsibility.....	6
5.1	General.....	6
5.2	Quality and food and beverage safety systems	7
5.3	Food and beverage safety and quality system principles	8
5.4	Responsibility, authority, and communication	9
5.5	Management review	9
6	Resource management.....	10
6.1	Provision of resources.....	10
6.2	Human resources	10
6.3	Food and beverage safety and quality awareness.....	11
7	Product realization.....	12
7.1	HACCP food and beverage safety and quality plans	12
7.2	Customer related processes	12
7.3	Design and development.....	13
7.4	Food and beverage safety and quality in procurement.....	16
7.5	Planning for controlled production.....	18
7.6	Control of measuring and test equipment	20
8	Measurement, analysis, and improvement	21
8.1	General.....	21
8.2	Internal auditing and verification.....	21
8.3	Control of nonconforming product.....	23
8.4	Analysis of data	24
8.5	Improvement.....	24
Annexes		
A	Key elements of a registration program for the application of ISO 9000, HACCP Requirements.....	A1
A.1	Responsibilities of third party registrar	A1
A.2	Registration program for the application of ISO 9000/HACCP	A1

This page is intentionally blank.

Foreword

Today, food and beverage organizations are faced with the challenge of achieving economic sustainability and success while ensuring the quality and the safety of their products. It is widely recognized that meeting this challenge through the implementation of a comprehensive quality management system integrating Hazard Analysis and Critical Control Point (HACCP) principles and food hygiene practices (FHP) may be more effective and less costly than responding to concerns as they arise. The benefits associated with approaching food safety and quality issues in a proactive, rather than reactive, manner are numerous.

Quality management encompasses an organization's structure, policies, practices, procedures, processes, and resources designed to achieve stated quality objectives and targets. Implementation of HACCP principles provides a proactive, preventive system for managing food safety from chemical, physical, and biological perspectives. The merger of these two concepts is a natural outcome.

An integrated HACCP/Quality System encourages organizations to move beyond regulatory compliance by addressing food safety and quality throughout management processes and various operations, including, but not limited to, engineering, design, research and development, production, finance, and marketing.

This Guideline was published in 1996 using ISO 9000: 1994: *Quality Management and Quality Assurance Standard* and *Codex Alimentarius* as guidelines. The 2002 revision incorporates revisions to ISO 9000: 2000.

This Guideline was prepared using a consensus process under the direction of the NSF Advisory Committee on Food Safety and Quality. The Advisory committee comprises representatives from industry, food safety consulting firms, regulatory agencies, and potential users of the Guideline. This Guideline specifies minimum requirements of an integrated ISO/HACCP system. The specifications contained in this Guideline address the elements of a system that the committee considered central to the definition of food safety and quality.

This Guideline is not intended to change the legal standard of care applicable to products or services.

It should be noted that the management system elements specified in this Guideline do not need to be established independently of existing management system elements. In some cases, it will be possible to conform with both the quality system and the HACCP requirements by adapting existing management system components. The intent is to preserve management flexibility and prerogative, as much as possible, in the development and implementation of a food safety and quality management system.

Suggestions for improvements of this Guideline are welcome. Comments should be sent to NSF International, Food Safety and Quality Department, 789 Dixboro Road, Ann Arbor, Michigan 48105-0140, USA.

This page is intentionally blank.

NSF International Guideline for Food Safety and Quality —

Application of ISO 9000 and HACCP requirements to global food and beverage industries

1 General

Primary concerns of any food or beverage company or organization must be both the safety and quality of its products and services. It is a basic tenet of this guide that food and beverage safety is the first and most important element of food quality.

Therefore, in order to be successful, a food or beverage company must offer products or services that:

- are free from biological, chemical, or physical hazards to ensure the safety of the consumer;
- satisfy customer's expectations of wholesomeness and value;
- comply with applicable standards, specifications, and all other applicable regulations;
- comply with statutory and other requirements of society;
- are available at competitive prices; and
- are provided at a cost which will yield a profit.

1.1 Organizational goals

In order to meet its objectives, the company should organize itself in such a way that the technical, administrative, and human factors affecting the safety and quality of its products and services are controlled. All such control should be oriented toward the reduction, elimination and, most impor-

tantly, prevention of safety and quality deficiencies.

A hazard analysis critical control point (HACCP) system should be developed and implemented to prevent food and beverage safety hazards and to manage food and beverage safety issues. This should include all appropriate training.

A quality management system should be developed and implemented for the purpose of accomplishing the objectives set out in a company's quality policies and all appropriate training should be provided.

In order to achieve maximum effectiveness and to satisfy customer expectations, it is essential that the safety and quality management systems be appropriate to the type of activity and to the products or services being offered.

1.2 Meeting company/customer needs

Safety and quality management systems have two inter-related aspects.

1.2.1 Company needs and interests

There is a business need to attain and to maintain the desired quality and freedom from safety hazards and the desired quality levels at an optimal cost. The fulfillment of these requirements is related to the planned efficient utilization of the technological, human, and material resources available to the company for quality management and for the application of HACCP for identification of specific hazards and preventative measures for their control.