Food equipment

NSF International Standard/ American National Standard



NSF International, an independent, notfor-profit, non-governmental organization, is dedicated to being the leading global provider of public health and safetybased risk management solutions while serving the interests of all stakeholders.

This Standard is subject to revision.

Contact NSF to confirm this revision is current.

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

Chair, Joint Committee on Food Equipment c/o NSF International 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 International Standard/ American National Standard for Food Equipment –

Food equipment

Standard Developer

NSF International

Approved May 28, 2007 **NSF International Board of Directors**

Designated as an ANSI StandardMay 28, 2007 **American National Standards Institute**

Prepared by

The NSF Joint Committee on Food Equipment

Recommended for Adoption by

The NSF Council of Public Health Consultants

Adopted by
The NSF Board of Directors
October 1952

Revised April 1965
Revised August 1968
Revised July 1973
Revised November 1977
Revised December 1980
Revised June 1982
Revised November 1987
Revised May 1992
Revised May 1996
Revised June 2002
Editorial revision – April 2003
Revised February 2005
Revised May 2007

Published by

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

For ordering copies or for making inquiries with regard to this Standard, please reference the designation "NSF/ANSI 2-2007."

Copyright 2007 NSF International

Previous editions © 2005, 2002, 1996, 1992, 1987, 1982, 1980, 1977, 1973, 1968, 1965, 1952

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.

Disclaimers¹

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 Standard 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 Standard.

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 Standard because governmental agencies or other national standards-setting organizations provide safety requirements.

Participation in NSF 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.

.

¹ The information contained in this Disclaimer is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. Therefore, this Disclaimer may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the Standard.

This page is intentionally left blank.

Contents

1	1.1 Pur	poseppe	1
		ernate materials, design, and construction	
		asurement	
	1.1 1010		
2	Normat	ive references	1
_			
3	Definition	ons	2
4	Materia	ls	3
		nformance with NSF/ANSI 51	
		der	
		und dampening material	
		apping blocks	
	4.5 Wo	od-top bakers tables and cutting boards	3
5		and construction	
		neral sanitation	
		ernal angles and corners, food zone	
		ernal angles and corners	
		nts and seams	
		steners	
		ulation	
	5.7 Reinforcing and framing		
		pection and maintenance panels	
		Drs	
	5.10	Door tracks and guides	
	5.11	Door closers, handles, knobs, and pulls	
	5.12 5.13	Hinges Covers	
	5.13 5.14	Edges and nosings	
	5.14	Openings to food zones	
	5.16	Louvers	
	5.17	Hardware	
	5.18	Latches and catches	
	5.19	Breaker strips	
	5.20	Equipment mounting	
	5.21	Legs and feet	9
	5.22	Casters, rollers, and gliders	9
	5.23	Open display stands and brackets	
	5.24	Counter tray slides	
	5.25	Shelving	
	5.26	Counter steps and platforms	
	5.27	Pipe chases	
	5.28	Enclosed spaces	
	5.29	Food and flatware containers and drawers	
	5.30	Pots, pans and utensils	11
	5.31	Insets	
	5.32	Bins	
	5.33	Ice pans and bins	
	5.34	Food display cases	12
	5.35	Food shields	
	5.36	Self-leveling storage systems	13

	5.37	Dipper wells	13				
	5.38	Sinks	13				
	5.39	Dishtables and accessories	14				
	5.40	Sound dampening					
	5.41	Auxiliary cleaning facilities and accessories					
	5.42	Backsplashes					
	5.43	Tops of counters, tables, and back bars					
	5.44	Breakable glass components					
	5.45	Light fixtures					
	5.46	Thermometers					
	5.47	Beverage (urn) stands					
	5.48	Water stations					
	5.49	Drip pans					
	5.50	Syrup and crushed fruit containers					
	5.51	Food dispensing pumps					
	5.52	Canopies and hoods					
	5.53	Wood-top bakers tables and cutting boards					
	5.54	Synthetic bakers tables and cutting boards					
	5.55	Plumbing connections					
	5.56	Wheeled food service equipment					
	5.57	Conveyors					
	5.58	Enclosed food transport carts and cabinets					
	5.59	Custom equipment					
	5.59	Custom equipment	۷ ۱				
6	Perform	Performance					
U		eaning and sanitization procedures					
		ermometers					
	0.2 111	emoneters	20				
7	Food e	quipment provided with a security package	24				
		neral					
		ecial tools					
		stening methods (splash zone)					
		stening methods (nonfood zone)					
		iges					
		rdware					
		elf brackets, pilasters, slides, or cleats					
		k plate					
		awers					
		Conveyor units					
	7.11	Labeling					
	7.11	Labourg	∠¬				
8	Sunnle	mental requirements for marine food equipment	25				
0		terials					
		sign and construction					
	0.2 DC	sign and constitution					
Δn	nex A		Δ35				
, 111	-	rpose					
		ld joints					
		rvice connections					
	A.5 56	THOO CONTINUOUS					
Δn	nex B		R1				
/*\! I		mmary					
		uipment					
		proorganism					
		pplies					
		agents					
	סיט עה	aytiio					

B.6 Safety precautions and hazards	B2
B.7 Growth medium	
B.8 Culture of E. coli	

This page is intentionally left blank.

Foreword²

The purpose of this Standard is to establish minimum food protection and sanitation requirements for the materials, design, fabrication, construction, and performance of food handling and processing equipment.

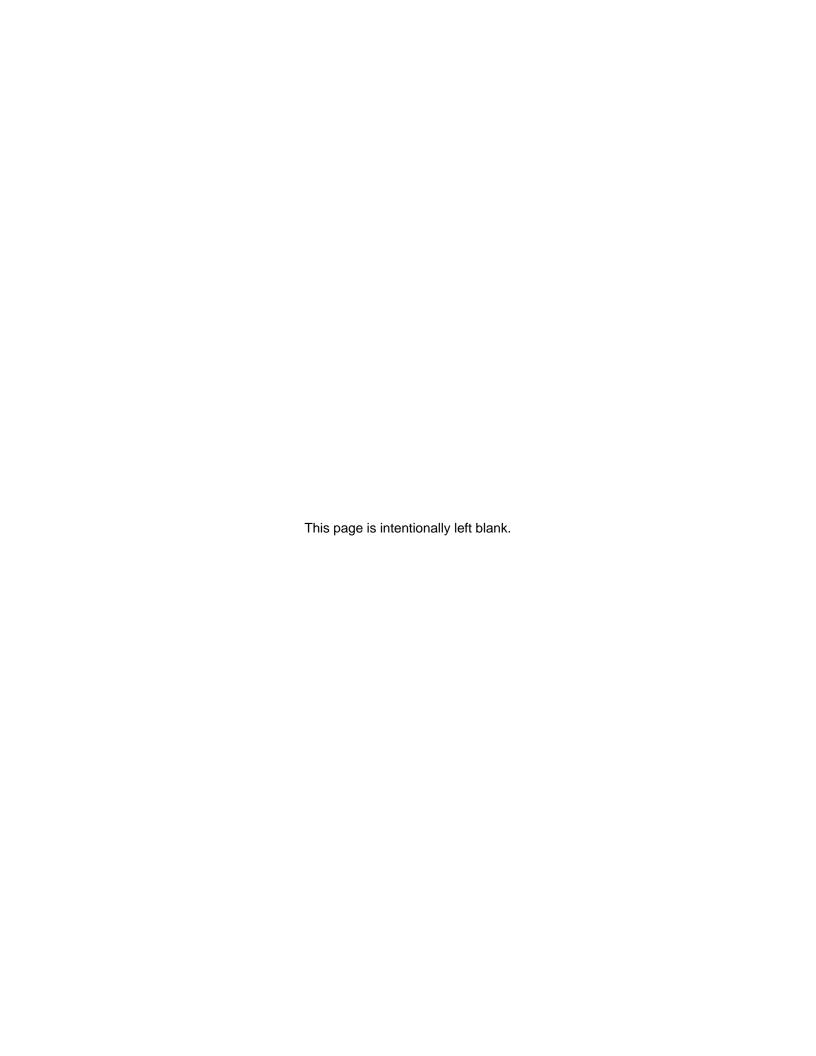
This Standard has been revised to include editorial changes to clarify requirements, achieve consistency with the "boilerplate" language in the NSF food equipment standards and update the normative references. Section 6.2, Thermometers, has been updated to address electronic thermometers power loss. The methods used for suspension preparation, controls, and analysis of *Escherichia coli* have been updated in annex A.

This Standard was developed by the NSF Joint Committee on Food Equipment using the consensus process described by the American National Standards Institute.

Suggestions for improvement of this Standard are welcome. Comments should be sent to Chair, Joint Committee on Food Equipment, c/o NSF International, Standards Department, P. O. Box 130140, Ann Arbor, Michigan, 48113-0140, USA.

_

² The information contained in this Foreword is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. Therefore, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the Standard.



© 2007 NSF NSF/ANSI 2 – 2007

NSF International Standard for Food Equipment –

Food equipment

1 General

1.1 Purpose

This Standard establishes minimum food protection and sanitation requirements for the materials, design, fabrication, construction, and performance of food handling and processing equipment.

1.2 Scope

Equipment covered by this Standard includes, but is not limited to, bakery, cafeteria, kitchen, and pantry units and other food handling and processing equipment such as tables and components, counters, hoods, shelves, and sinks.

Section 7 of this Standard pertains to food handling and processing equipment that has been designed and manufactured for special use purposes. Food equipment designed and manufactured with a security package is utilized in environments such as correctional facilities, mental health facilities, or some schools. For these environments, where both sanitation and security are concerns, 7 contains exceptions to this Standard that shall only be applicable to the splash and nonfood zones of food equipment provided with a security package.

Equipment components and materials covered under other NSF or NSF/ANSI Standards or Criteria shall also comply with the requirements therein. This Standard is not intended to restrict new unit design, provided that such design meets the minimum specifications described herein.

1.3 Alternate materials, design, and construction

While specific materials, design, and construction may be stipulated in this Standard, equipment that incorporates alternate materials, design, or construction may be acceptable when such equipment meets the intent of the applicable requirements herein.

1.4 Measurement

Decimal and SI conversions provided parenthetically shall be considered equivalent. Metric conversions have been made according to IEEE/ASTM SI 10.

2 Normative references

The following documents contain provisions that, through reference, constitute provisions of this NSF/ANSI Standard. At the time this Standard was balloted, the editions listed below were valid. All documents are subject to revision, and parties are encouraged to investigate the possibility of applying the recent editions of the documents indicated below.