NSF International Standard /
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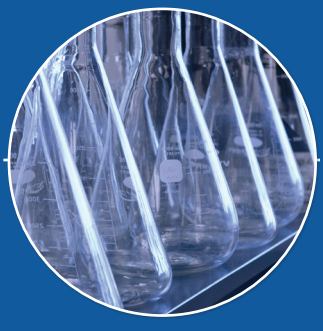
NSF/ANSI 8 - 2017

Commercial Powered Food Preparation Equipment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NSF International Standard/
American National Standard
for Food Equipment —

Commercial powered food preparation equipment

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Contents

Foreword[2]

The purpose of this Standard is to establish minimum food protection and sanitation requirements for the materials, design, construction, and performance of commercial powered food preparation equipment.

This edition of the Standard contains the following revision:

Issue 12

This revision updated the Normative References and boilerplate language in sections 5.20 and 5.24.

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. This Standard is maintained on a Continuous Maintenance schedule and can be opened for comment at any time. Comments should be sent to Chair, Joint Committee on Food Equipment at standards@nsf.org or, 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.

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NSF International Standard
for Food Equipment —

Commercial powered food preparation equipment

1 General

1.1 Purpose

This Standard establishes minimum food protection and sanitation requirements for the materials, design, and construction of commercial food preparation equipment that is power operated. This Standard does not apply to manually operated equipment. This Standard does not contain safety requirements.

1.2 Scope

Equipment covered by this Standard includes, but is not limited to, coffee grinders, grinders, mixers, pasta makers, peelers, saws, slicers, tenderizers, and similar equipment.

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, and 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 within. 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 and significant figure rounding 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. The most recent published edition of the document

shall be used for undated references.

21 C.F.R. Part 131*, Milk and Cream (Food and Drug)*[3]

40 C.F.R. §180.940 *Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations (Food-Contact Surface Sanitizing Solutions)*[3]

ANSI Z97.1 – 2009. Safety Glazing Materials Used in Buildings – Safety Performance Specifications and Methods of Test [4]

ANSI/ASSE 1001 – 2008. *Atmospheric Type Vacuum Breakers*[5]

ANSI/ASSE 1020 – 2004. *Pressure Vacuum Breaker Assembly*[5]

ANSI/ASSE 1022 – 2003. *Backflow Preventer for Beverage Dispensing Equipment*[5]

ANSI/ASSE 1024 –2004. *Dual Check Backflow Preventers*[5]

APHA Standards Methods for the Examination of Water and Wastewater, 22nd edition[6]

ASSE 1032 – 2004. *Dual Check Valve Type Backflow Preventers for Carbonated Beverage Dispensers – Post Mix Type*[5]

ASTM D618-08, Standard Practice for Conditioning Plastics for Testing[7]

FDA, Food Code 2009[8]

IAPMO – *Uniform Plumbing Code* 2015[9]

ICC – *International Plumbing Code* 2015[10]

IEEE/ASTM SI 10 – 2010. *American National Standard for Metric Practice* [11]

NSF/ANSI 51. *Food equipment materials*

NSF/ANSI 170. *Glossary of food equipment terminology*

UL 157 – 2007. Gaskets and Seals[12]

UL 197 – 2010. *Standard for Commercial Electrical Cooking Appliances*[12]

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[3] U. S. Government Printing Office, Washington, DC 20402 <www.gpo.gov>.

[4] American National Standards Institute, 25 West 43rd Street, New York, NY 10036 <www.ansi.org>.

[5] ASSE International Office, 901 Canterbury, Suite A, Westlake, OH 44145 <www.asse.org>.

[6] American Public Health Association, 800 I Street, NW, Washington, DC 20001 <www.apha.org>.

[7] ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428 <www.astm.org>.

[8] US Department of Health and Human Services, Public Health Service, Food and Drug Administration, College Park, MD 20740 <www.fda.gov>.

[9] International Association of Plumbing and Mechanical Officials (IAPMO), 5001 E. Philadelphia St., Ontario, CA 91761 <www.iapmo.org>.

[10] International Code Council (ICC), 5203 Leesburg Pike, Suite 600; Falls Church, VA 22041 <www.iccsafe.org>.

[11] ASTM International, 100 Barr Harbor Dr., West Conshohocken, PA 19428 <www.astm.org>.

[12] UL, LLC, 333 Pfingsten Road, Northbrook, IL 60062 <www.ul.com>.

UL 471 – 2010. *Commercial Refrigerators and Freezers*[12]

3 Definitions

Terms used in this Standard that have special technical meaning are defined in NSF/ANSI 170.

4 Materials

The requirements contained in this section are intended to protect food from contamination and ensure that the materials used in the manufacture of equipment resist wear, penetration by vermin, and the effects of foods, cleaning compounds, sanitizers, and other substances that may contact the materials in the intended use environment. Materials used in unexposed non-food zone areas shall be exempt from all requirements in 4.

4.1 Conformance with NSF/ANSI 51

Materials shall conform to the requirements in NSF/ANSI 51 applicable to the zone in which the material is used.

4.2 Solder

Solder containing lead as an intentional ingredient shall not be used in a food or splash zone.

4.3 Gaskets

Gaskets shall be made of resilient rubber, rubber-like materials, or plastics. Gaskets shall conform to NSF/ANSI 51 and shall function at any temperature to which they are exposed in normal operation.

5 Design and construction

This section contains design and construction requirements for equipment covered within the scope of this Standard.

5.1 General sanitation

5.1.1 Equipment shall be designed and manufactured to prevent the harborage of vermin and the accumulation of dirt and debris, and to permit the inspection, maintenance, servicing, and cleaning of the equipment and its components.

5.1.2 Equipment shall be designed and manufactured so that food may be added, processed, finished, dispensed, removed, and/or served in a sanitary manner.

5.1.3 Food zones shall be readily accessible and easily cleanable or shall be designed for in-place cleaning when a readily accessible design is not feasible.

> NOTE — In heavy duty or high speed equipment that requires close tolerances on assembled parts and secure fastening for safety or continuing function, simple tools may be used for disassembly. In such instances, parts of the equipment requiring cleaning shall be accessible and cleanable.

5.1.4 Food zones for which in-place cleaning is intended shall be designed so that cleaning and sanitizing solutions may be circulated or passed throughout the fixed system. The design shall ensure that cleaning and sanitizing solutions contact all food contact surfaces. The system shall be self-draining