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NSF CRITERIA C-2

19 February 1985

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NOTICE: When reaffirmation, amendment, revision, or cancellation of this standard is initially proposed, the industry group responsible for this standard shall inform the military coordinating activity of the proposed change and request their participation.

Custodians:

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Navy - YD
Air Force - 99

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CRITERIA C-2

Special Equipment and/or Devices



**NATIONAL SANITATION FOUNDATION
LISTING SERVICES**

NATIONAL SANITATION FOUNDATION
CRITERIA C-2
FOR
SPECIAL EQUIPMENT AND/OR DEVICES

As Prepared by
The NSF Joint Committee
on
Food Equipment
and
Recommended for Adoption
by
The NSF Council of Public Health Consultants
Adopted
by
The NSF Board of Trustees
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National Sanitation Foundation
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The following is a list of nationally uniform sanitation standards and criteria established by the National Sanitation Foundation.

- 1 Soda Fountain and Luncheonette Equipment
- 2 Food Service Equipment
- 3 Commercial Spray-Type Dishwashing Machines
- 4 Commercial Cooking and Hot Food Storage Equipment
- 5 Commercial Hot Water Generating and Heat Recovery Equipment
- 6 Dispensing Freezers
- 7 Food Service Refrigerators and Storage Freezers
- 8 Commercial Powered Food Preparation Equipment
- 12 Automatic Ice Making Equipment
- 13 Refuse Compactors and Compactor Systems
- 14 Plastic Piping System Components and Related Materials
- 18 Manual Food and Beverage Dispensing Equipment
- 20 Commercial Bulk Milk Dispensing Equipment and Appurtenances
- 21 Thermoplastic Refuse Containers
- 23 Marine Sanitation Devices
- 24 Plumbing System Components for Mobile Homes and Recreational Vehicles
- 25 Vending Machines for Food and Beverages
- 26 Pot, Pan, and Utensil Washers
- 29 Detergent/Chemical Feeders for Commercial Spray-Type Dishwashing Machines
- 30 Cabinetry and Laboratory Furniture for Hospitals
- 31 Polyethylene Refuse Bags
- 35 Laminated Plastics for Surfacing Food Service Equipment
- 36 Dinnerware
- 37 Air Curtains for Entrances in Food Establishments
- 40 Individual Aerobic Wastewater Treatment Plants
- 41 Wastewater Recycle/Reuse and Water Conservation Systems
- 42 Drinking Water Treatment Units - Aesthetic Effects
- 43 Chemical Feeding and Processing Equipment Relating to Supplementary Treatment of Potable Water
- 49 Class II (Laminar Flow) Biohazard Cabinetry
- 50 Circulation System Components for Swimming Pools, Spas, or Hot Tubs
- 51 Plastic Materials and Components Used in Food Equipment
- 52 Supplemental Flooring
- 53 Drinking Water Treatment Units - Health Effects
- 54 Flexible Membrane Liners
- C-2 Special Equipment and/or Devices
- C-8 Pitless Well Adapters
- C-9 Evaluation of Special Processes or Devices Used in Treating Wastewater
- C-10 Ductless Air Circulating and Treatment Devices

THE NATIONAL SANITATION FOUNDATION

Purpose and Organization

The Foundation, popularly referred to as NSF, is a nonofficial and noncommercial agency. It is incorporated under the laws of Michigan as a not-for-profit organization devoted to research, education, and service. It seeks to solve problems involving man and his environment. It wishes to promote man's health and enrich the quality of life through conserving and improving that environment. Its 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 deal with problems involving products, equipment, procedures, and services related to health and the environment.

NSF is perhaps best known for its role in the developing of standards and criteria for equipment, products, and services that bear upon health. The NSF seal is widely recognized as a sign that the article to which it is affixed complies with public health requirements. NSF early in its existence established its own testing laboratory as a subsidiary corporation. This laboratory conducts research; tests and evaluates equipment, products, and services for compliance with NSF standards and criteria; and grants and controls the use of the NSF seal.

A brochure is available discussing in some detail the purpose, objectives, and philosophy of NSF and its standards and listing programs. It describes the way in which distinguished leaders from business, industry, public health, and related professions give generously of their time and talent in helping achieve NSF objectives. The brochure is available upon request.

DISCLAIMERS

The National Sanitation Foundation (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 judgement given with due consideration to the necessary limitations of practical operation and state-of-the-art at the time the standard is processed. 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 insure sanitation and protection of the public health. Provisions for 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.

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Appendix A - Participating Committees

NSF Joint Committee on Food Equipment	A1
NSF Council of Public Health Consultants	A3

**NSF CRITERIA C-2
FOR
SPECIAL EQUIPMENT AND/OR DEVICES**

SECTION 1. GENERAL

- 1.0 **SCOPE:** These criteria cover sanitation requirements for equipment and/or devices used in storing, preparing, or handling foods and beverages. No attempt has been made to incorporate safety provisions. These are applicable provisions and additional specific requirements or exceptions, as might be needed for proper evaluation of devices or equipment for which individual standards are not practical.
- 1.1 **MINIMUM REQUIREMENTS:** Variations from these minimum requirements may be permitted when they make units more resistant to wear, corrosion, or more easily cleanable. Units with components covered under existing NSF standards or criteria shall comply with those applicable requirements.
- 1.2 **ALTERNATE MATERIALS:** If specific materials are mentioned, other materials equally satisfactory from the standpoint of sanitation and protection of food may be used.
- 1.3 **PRINCIPLES OF OPERATION:** Equipment and/or devices differing in principle of operation or requirements of other NSF standards or criteria may qualify under this criteria. Comprehensive tests shall indicate that results produced are at least equal to those produced by equipment complying with other standards or criteria. The equipment and/or devices shall meet the requirements for materials, finishes, fabrication, and cleanability of the applicable standard or criteria. The NSF Joint Committee on Food Equipment shall be apprised of operational differences and proposed evaluation protocol before evaluation.
- 1.4 **CRITERIA REVIEW:** A complete review of these criteria shall be conducted at least every five years to keep requirements consistent with new technology. These reviews shall be conducted by representatives from the industry, public health, and user groups or agencies of the NSF Joint Committee on Food Equipment.

SECTION 2. DEFINITIONS

- 2.0 **ACCESSIBLE:** Fabricated to be exposed for cleaning and inspection using simple tools (screwdriver, pliers, open-end wrench, etc.).
 - 2.0.1 **READILY ACCESSIBLE:** Fabricated to be exposed for cleaning and inspection without using tools.

- 2.1 **CLEANING:** Physical removal of residues of foods, ingredients, and other soiling materials.
 - 2.1.1 **EASILY CLEANABLE:** Fabricated of materials, designed, and constructed so soil is removed by normal cleaning methods.
- 2.2 **CLOSED:** Fabricated with no openings exceeding 1/32 inch (0.8 mm).
- 2.3 **CORROSION RESISTANT:** Capable of maintaining original surface characteristics under prolonged contact with the use environment, cleaning compounds, and sanitizing (bactericidal) solutions.
- 2.4 **FOOD:** Any raw, cooked, or processed edible substance, ice, water, beverage, or ingredient intended for human consumption.
- 2.5 **REMOVABLE:** Capable of being taken away from the main unit using only simple tools (screwdriver, pliers, open-end wrench, etc.).
 - 2.5.1 **READILY REMOVABLE:** Capable of being taken away from the main unit without using tools.
- 2.6 **SANITIZATION:** Application of accumulative heat or chemicals at concentrations and times necessary to reduce microbial population (including pathogens) to a safe level.
- 2.7 **SEALED:** Fabricated without openings that permit entry or leakage of water.
- 2.8 **SMOOTH:** A surface free of pits and inclusions with a cleanability equal to or exceeding the following:
 - Food Zone: No. 3 (100 grit) finish on stainless steel
 - Splash and Nonfood Zones: Commercial grade, hot-rolled steel, free of visible scale
- 2.9 **TOXIC:** Having an adverse physiological effect on humans.
- 2.10 **ZONES (CONTACT SURFACES);**
 - 2.10.1 **FOOD ZONE:** Surfaces which the food normally contacts, and those surfaces from which the food may drain, drip, or splash back onto surfaces normally in contact with food.
 - 2.10.2 **SPLASH ZONE:** Surfaces other than food zone subject to routine splash, spillage, or other soiling during normal use.
 - 2.10.3 **NONFOOD ZONE:** All exposed surfaces other than food or splash zone.