



*NSF International Standard /  
American National Standard*

# NSF/ANSI 170 - 2021

## Glossary of Food Equipment Terminology



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NSF International Standard /  
American National Standard  
for Food Equipment –

**Glossary of Food Equipment Terminology**

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## Foreword<sup>2</sup>

The purpose of this Glossary is to provide a single resource containing all of the technical terms used in all NSF Food Equipment Standards. With all NSF Food Equipment definitions located in one document, and not in the individual Food Equipment Standards, greater consistency will be achieved, as changes to a given definition will affect all other Food Equipment Standards simultaneously once adopted in the Glossary. In addition, the Glossary of Food Equipment Terminology may serve as a reference tool within the industry.

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

This edition of the Standard contains the following revisions:

### Issue 28

This revision affirms new and revised definitions in Section 3 in order to harmonize language between the FDA Food Code and NSF Food Equipment Standards.

### Issue 32

This revision updates the boilerplate language in Section 2 to match other Food Equipment standards.

Additionally, several definitions were reordered and renumbered to correct alphabetical order.

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

This Standard and the accompanying text are intended for voluntary use by certifying organizations, regulatory agencies, and/or manufacturers as a basis of providing assurances that adequate health protection exists for covered products.

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](mailto:standards@nsf.org), or c/o NSF International, Standards Department, PO Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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# NSF/ANSI Standard for Food Equipment –

## Glossary of Food Equipment Terminology

### 1 General

#### 1.1 Purpose

This Standard establishes definitions for food equipment, devices, and related components.

#### 1.2 Scope

Definitions covered by this Standard consist of terminology related to food equipment, including terms describing equipment, materials, design, construction, and performance testing. This Standard includes common definitions of terms used throughout NSF Food Equipment and Sanitation Standards.

#### 1.3 Measurement

Decimal and SI conversions provided parenthetically shall be considered equivalent. Metric conversions have been made according to IEEE/ASTM SI 10.<sup>3</sup>

### 2 Normative references

The following documents contain requirements that, by reference in this text, constitute requirements of this Standard. At the time of publication, the indicated editions were valid. All of the documents are subject to revision and parties are encouraged to investigate the possibility of applying the most recent editions of the documents indicated below. The most recent published edition of the document shall be used for undated references.

21 CFR Part 131, *Milk and Cream (Food and Drug)*<sup>4</sup>

ANSI/NEMA LD 3 – 2005, *High-Pressure Decorative Laminates*<sup>5</sup>

FDA Food Code – 2017<sup>6</sup>

IEEE/ASTM SI 10 – 2016, *American National Standard for Metric Practice*<sup>3</sup>

NSF/ANSI 2, *Food Equipment*

<sup>3</sup> ASTM International. 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428. <[www.astm.org](http://www.astm.org)>

<sup>4</sup> National Archives and Records Administration, Office of the Federal Register. 7 G Street NW, Suite A-734, Washington, DC 20401. <[ecfr.federalregister.gov/](http://ecfr.federalregister.gov/)>

<sup>5</sup> National Electrical Manufacturers Association, 1300 N 17th Street, Suite 900, Arlington, VA 22209. <[www.nema.org](http://www.nema.org)>

<sup>6</sup> US Department of Health and Human Services, Public Health Service, Food and Drug Administration. 10903 New Hampshire Ave, Silver Spring, MD 20993. <[www.fda.gov](http://www.fda.gov)>

NSF/ANSI 3, *Commercial Warewashing Equipment*

NSF/ANSI 6, *Dispensing Freezers*

NSF/ANSI 7, *Commercial Refrigerators and Freezers*

NSF/ANSI 35, *High Pressure Decorative Laminates for Surfacing Food Service Equipment*

NSF/ANSI 52, *Supplemental Flooring*

### 3 Definitions

**3.1 accessible:** Manufactured to be exposed for cleaning and inspection with the use of simple tools.

**3.2 air curtain:** A device that delivers a vertical stream of air across an opening for the purpose of keeping tempered air from moving out of the building and insects from moving into the building.**air gap:** The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of that receptacle.

**3.3 air curtain:** A device that delivers a vertical stream of air across an opening for the purpose of keeping tempered air from moving out of the building and insects from moving into the building.

**3.4 air curtain protected openings**

**3.4.1 customer entry:** Exterior passage for entrance into an establishment primarily intended for customers.

**3.4.2 service entry:** An exterior passage for entrance into an establishment primarily intended for employees and the delivery of supplies.

**3.4.3 service window:** An exterior opening in the wall of an establishment primarily intended to pass finished goods to customers.

**3.5 airstream:** The directed flow of air generated by an air curtain assembly.

**3.6 airstream discharge nozzle:** The slot from which the airstream exits the air curtain assembly.

**3.7 ambient temperature:** The temperature of a surrounding medium such as air, gas, or a liquid that comes into contact with items such as equipment, devices, instruments, and food.

**3.8 apron:** The exposed fixed vertical surface below the working surface.

**3.9 auxiliary rinse:** Recirculated water pumped from a tank or sump and sprayed onto dishes after the wash or pumped rinse cycle and before the sanitizing rinse is applied.

**3.10 backflow:** The flow of water or other liquids, mixtures, or substances into a potable supply of water from any source(s) other than its intended source.

**3.11 backflow preventer:** A device or means to prevent backflow.

**3.12 backsplash:** The exposed fixed vertical surface at the rear or side of a unit, above the horizontal working surface, designed to protect the wall from splashing liquid or food.

**3.13 bain-marie:** A large pan containing hot water in which smaller pans may be set to cook food

slowly or keep food hot.

**3.14 baker's table:** A table used only for the preparation of baked products, whose top has curbing along the rear and sides to minimize spillage of flour onto the floor.

**3.15 beverage (urn) stand:** A fixed or portable stand with a drain trough to support a coffee, tea, or water urn.

**3.16 bin:** A semi-enclosed container, open on top, with or without a lift-off, sliding, or hinged cover. Floor type bins are usually mobile and typically sized to be rolled under a worktable or baker's table.

**3.16.1 ice storage bin:** A bin that is fully enclosed and insulated, with hinged or sliding insulated door(s) at the front; it is normally stationary and set under ice making equipment.

**3.16.2 silverware bin:** A container, intended for storing flatware or cutlery, that is usually small and mounted in a holder set on or under a countertop with other bins.

**3.16.3 vegetable storage bin:** A bin with a perforated or screened body intended for the storage of produce items.

**3.17 bond:** The joining of materials.

**3.18 bowl:** An open top container for mixing or serving food.

**3.19 braising pan:** See *tilting griddle skillet*.

**3.20 breaker strip:** A thermal barrier of relatively nonconductive material.

**3.21 broiler:** An appliance (other than a rotisserie) in which cooking is accomplished by direct exposure to radiant heat.

**3.22 buffet unit:** Equipment that is designed to receive and maintain food product(s) at proper temperatures and is intended for customer service.

**3.23 bulk food:** Food, available to the customer that is not enclosed in a sealed package, wrapper, or similar container.

**3.24 bulk milk (cream) dispenser:** Equipment that consists of a mechanically refrigerated cabinet and a dispensing mechanism that stores and dispenses servings of milk at proper temperatures when operated manually or by machine actuation (other than by coin).

**3.25 carbonator:** A device that combines cold water and carbon dioxide under pressure in a storage tank to produce carbonated water.

**3.26 caster:** A wheel mounted on a support that may or may not swivel and is used to support mobile equipment.

**3.27 check valve:** A device that allows liquid to flow in only one direction.

**3.28 chemical sanitizer feeder:** A device that automatically adds a chemical sanitizing agent to the chemical sanitizing rinse of a warewashing machine.

**3.29 chemical sanitizing machine:** A warewashing machine that applies a chemical sanitizing solution to the surfaces of wares to achieve sanitization.

**3.30 chopper:** Equipment used to chop food.

**3.31 clean-in-place (CIP):** A method of cleaning and sanitizing equipment surfaces in place by mechanically circulating or passing a detergent solution, water rinse, and sanitizing solution onto or over the surfaces. Equipment designed for manual cleaning such as band saws, slicers, or mixers are not intended for CIP.

**3.32 cleanable:** Able to be freed of residues of food and other soiling materials.

**3.33 cleaning:** Physical removal of residues of food and other soiling materials.

**3.34 closed:** Manufactured with no space exceeding  $1/32$  in (0.031 in, 0.79 mm).

**3.35 coating:** The result of a process where a material is deposited on and adhered to a substrate to create a new surface. The coating material does not alter the physical properties of the substrate.

**3.36 coffee maker:** Equipment used to brew or otherwise prepare coffee and similar hot beverages.

**3.37 coffee urn:** See *hot water urn*.

**3.38 compactor:** A refuse processor intended to reduce the volume of food waste and nonfood waste refuse by crushing.

**3.39 compressor percentage run time:** Under defined conditions of ambient temperature and internal storage temperature, the compressor percentage run time,  $R$ , is as follows:

$$R = d/D \times 100$$

where:

$d$  = elapsed time that the compressor is operating during a whole number of cycles  
 $D$  = total elapsed time during a whole number of cycles.

**3.40 containers, thermoplastic refuse:** Thermoplastic containers of any size or capacity for the temporary storage of waste material.

**3.41 contamination:** The presence of soil, unwanted or unacceptable numbers of microorganisms, or any other unwanted organic or inorganic matter.

**3.42 controlled location vending machine:** A limited service vending machine that (1) dispenses only nonpotentially hazardous foods; (2) is designed to be filled and maintained in a sanitary manner by persons at the location of installation; and (3) is intended for use at locations protected from environmental contamination.

**3.43 conveyor:** A mechanism for moving items between locations.

**3.44 conveyor machine:** (As used in NSF/ANSI 3) a warewashing machine that employs a conveyor or similar mechanism to carry dishes through a series of wash and rinse sprays within the machine.

**3.45 corrosion resistant:** Capable of maintaining original surface characteristics under prolonged contact with the intended end use environment and exposure to appropriate cleaning compounds and sanitizing solutions.

**3.46 corrugation:** A type of nonflat surface that drains liquid and permits the circulation of air from a relatively horizontal plane.

**3.47 cover:** A protective device for a relatively horizontal opening.

- 3.48 crazing:** Apparent fine cracks at or under the surface of a material or coating.
- 3.49 crevice:** A surface characteristic (e.g., crack, fissure) that adversely affects cleanability.
- 3.50 custom equipment:** Equipment designed and manufactured for a specific and unique installation or application.
- 3.51 cutting board:** A laminated or solid wood, rubber, or thermoplastic board upon which food items are chopped, diced, sliced, or cut.
- 3.52 deburr:** To remove sharp or rough surfaces that may cause injury.
- 3.53 deli slicer:** Counter mounted equipment with a rotating knife and movable carriage intended to slice meat, cheeses and vegetables.
- 3.54 detergent:** A chemical mixture added to wash water to remove soils.
- 3.55 detergent dispenser or feeder:** A device that automatically adds detergent to wash water.
- 3.56 differential:** (1) With a constant flow of water, the maximum difference between the inlet water temperature and the outlet water temperature that will cause the thermostat to activate; and (2) the change in value of a liquid and/or gas in temperature or pressure from the inlet to the outlet of a device.
- 3.57 dinnerware:** See *tableware*.
- 3.58 dipper well:** A container or receptacle equipped with potable running water and a drain for temporary storage of dippers or utensils.
- 3.59 dishes:** Reusable implements used in the preparation or service of food. This term includes, but is not limited to, plates, glasses, cups, bowls, utensils, and trays.
- 3.60 dishtable:** A unit that has a fixed and relatively horizontal work surface that may be affixed to a dishwashing machine.
- 3.61 dishwashing machine:** A machine designed to clean and sanitize plates, glasses, cups, bowls, utensils, and trays by applying sprays of a detergent solution (with or without blasting media granules) and a sanitizing rinse.
- 3.62 dispenser:** A unit for storage and preportioned transfer of material such as beverages, condiments, food, soaps, or wares.
- 3.63 display case** (nonrefrigerated or nonheated): An enclosed case used to display nonpotentially hazardous food.
- 3.64 disposer:** A refuse processor intended to macerate food waste refuse into a wet slurry for disposal into a sanitary drain.
- 3.65 door:** A protective device for a relatively vertical opening.
- 3.66 door mullion:** A horizontal or vertical divider panel that separates multiple doors or drawers in a refrigerator or freezer.
- 3.67 drip tray:** A receptacle into which liquids drip and/or drain. A drip tray is provided as part of a piece of buyout dispensing equipment and may be either detachable for emptying or piped to an external drain. A drip tray provides drainage for a single piece of equipment.

**3.68 drip trough:** A receptacle into which liquids drip and/or drain. A drip trough is designed and manufactured as an integral part of a piece of NSF/ANSI 2 equipment and is equipped with a drain. A drip trough provides drainage for one or more pieces of equipment.

**3.69 drying agent:** A chemical additive used to assist in accelerated spot-free drying.

**3.70 drying agent injector:** An automatic device for injecting or adding a drying agent to the final rinse.

**3.71 dual sanitizing mode machine:** A warewashing machine designed to operate as a hot water sanitizing machine or a chemical sanitizing machine.

**3.72 easily cleanable:** Manufactured so that food and other soiling material may be removed by manual cleaning methods.

**3.73 easily cleanable fastener:** A fastener that is tight fitting to the surface and manufactured so that food and other soiling material may be removed by manual cleaning methods from the exposed surfaces. Examples are slot head screws, Phillips head screws, and flush break pop rivets. Examples of fasteners not conforming to this definition are nonflush break pop rivets and internal socket drive-type fasteners.

**3.74 easily movable:** Portable, or mobile, or provided with a mechanical means to tilt a unit of equipment safely for cleaning; and having no utility connection, a utility connection that disconnects quickly, or a flexible utility connection line of sufficient length to allow the equipment to be moved for cleaning of the equipment and adjacent area.

**3.75 exposed:** Open to view from at least one angle.

**3.76 fat / oil filter:** A device that removes food particles and other solids from cooking fats and edible oils before their reuse in a fat / oil fryer.

**3.77 fat / oil fryer:** An appliance in which foods are cooked by immersion in hot oils or fats.

**3.78 feeders:** Chemical sanitizer feeders, detergent dispensers, and drying agent injectors.

**3.79 flatware:** Knives, spoons, and forks.

**3.80 flood level:** The maximum vertical distance of a liquid contained in a receptacle or bowl just before it overflows.

**3.81 flow pressure:** Pressure immediately adjacent to the supply side of a control valve in a line carrying water to a machine.

**3.82 food:** A raw, cooked, or processed edible substance, ice, water, beverage, or ingredient intended for human consumption.

**3.83 food contact surface:** See *food zone*.

**3.84 food cutter:** Equipment used to cut, grate, and/or shred food by high-speed rotation, oscillating knives, graters, and/or shredders.

**3.85 food establishment:** An operation that stores, prepares, packages, serves, vends, or otherwise provides food for human consumption.

**3.86 food shield:** (As used in NSF/ANSI 2) a barrier between a customer's mouth and unpackaged food that is designed and manufactured to assist in protecting the food from customer contamination. (Food shields are also known as sneeze guards or breath guards.)



**3.86.1 cafeteria counter food shield:** A barrier on a serving or buffet counter where food is plated and delivered to a customer.

**3.86.2 elementary school food shield:** A barrier on a serving or buffet counter intended for use in an elementary school or similar application food service facility serving grades 5 and under.

**3.86.3 freestanding food shields for use with countertop equipment:** A countertop, freestanding barrier intended to protect unpackaged food where a customer has access to the food.

**3.86.4 mobile buffet counter food shield:** A barrier on a mobile or portable serving or buffet counter.

**3.86.5 multiple tier food shield:** A barrier on a serving or buffet counter with more than one vertical tier.

**3.86.6 self-service food shield:** A barrier on a serving or buffet counter where a customer has access to food.

**3.86.7 self-service food shields attached to countertop equipment:** A barrier attached to countertop equipment that is holding or displaying unpackaged food where a customer has access to the food.

**3.86.8 vertical food shield:** A non-self-serve vertical, or near vertical barrier separating a customer from unpackaged food.

**3.87 food storage compartment:** (As used in NSF/ANSI 7) the area inside a refrigerator in which food is intended to be stored or displayed.

**3.88 food transport cabinet, heated or refrigerated:** A cart or cabinet that:

- is intended to transport hot and/or cold food from one location to another; and
- may have an energy source available at both locations or in transit, for heating and/or refrigeration; and
- is intended for temporary storage of food until the time of service; and
- is capable of maintaining food stored in it at a prescribed temperature.

**3.89 food transport cabinet, insulated enclosed:** An insulated and enclosed cart or cabinet that:

- is intended to transport hot and/or cold food from one location to another; and
- is intended for temporary storage of food until the time of service; and
- is capable of maintaining food stored in it at a prescribed temperature.

**3.90 fresh water:** (As used in NSF/ANSI 3) potable water that has not been recirculated or reused from a previous machine cycle.

**3.91 frozen dessert:** A frozen or partially frozen combination of two or more of the following: milk or milk products, eggs or egg products, sugar, water, fruit or fruit juices, candy, nut meats or other safe and wholesome food products, flavors, stabilizers, or colors. This term shall include ice cream, frozen custard, frozen yogurt, ice milk, milk sherbet, ices, and similar products.

**3.92 fryer:** A unit, heated by gas or electricity, that cooks food by immersion in a tank of oil or fat.

**3.93 fryer bowl splash:** The upper perimeter of the fryer bowl that is normally wetted with fat / oil during operation.

**3.94 glasswashing machine:** A machine specifically designed to clean and sanitize glasses by applying sprays of a detergent solution and a sanitizing final rinse.

**3.95 glider or glide:** A glider or glide is a floor contact member of a leg that enables the leg to slide across a floor surface.

**3.96 grater:** Equipment used to grate food.

**3.97 griddle:** Equipment used to cook food directly on a flat, smooth, horizontal plate heated from underneath.

**3.98 grinder:** Equipment used to grind food.

**3.99 hand sink:** A relatively small single sink bowl unit intended to be used expressly for the washing of hands. It is never to be used as a food preparation sink or as a unit for the washing of pots, pans, utensils, or dishes (also known as a hand washing lavatory).

**3.100 hardware:** A component of a larger piece of equipment having a specific capability or function including, but not limited to, metal parts such as fasteners, locks, or hinges.

**3.101 hearth oven:** An oven designed with an open doorway and dome-shaped interior, usually composed of high-temperature refractory ceramic or concrete. Hearth ovens do not include ovens designed to use interior walls as cooking surfaces.

NOTE — Hearth ovens are designed with an unrestricted open doorway due in part to potentially high operational temperatures. A closed grease-laden oven compartment may present a fire hazard when oven surface temperatures exceed 600 °F (316 °C) and an oven door is opened.

**3.102 heat exchanger:** A device that transfers heat from one medium or system to another.

**3.103 heat recovery equipment:** A heat exchanger that recovers energy from other heat sources (i.e., refrigeration, wastewater, exhaust duct, or solar) for the purpose of heating potable water.

**3.104 heat treatment cycle:** A cycle during which product is heated and maintained above a minimum prescribed temperature for a specific time interval and then cooled to an acceptable holding temperature.

**3.105 heat treatment dispensing freezer:** A self-contained dispensing freezer that maintains the microbiological quality of product by use of a heat treatment cycle as an integral part of the dispensing freezer.

**3.106 heated organic coating:** An organic coating applied to a surface where operating temperatures of the appliance may result in blistering, softening, or other heat-related degradation of the coating.

**3.107 high pressure decorative laminates:** Papers, fabrics, or other core materials that have been laminated at pressures of more than 750 psi (5.17 MPa) using thermosetting condensation resins as binders.

**3.108 hollow sections:** Areas of equipment that are not accessible for routine maintenance and cleaning.

**3.109 hood:** A device intended for collecting vapors, mists, particulate matter, fumes, smoke, steam, or heat before entering an exhaust system.

**3.110 hot food holding equipment:** A heated device that, when preheated, is intended to receive and maintain preheated food products at or above a minimum prescribed temperature when connected to a power source.

- 3.111 hot water sanitizing machine:** A warewashing machine that applies hot water to the surfaces of dishes to achieve sanitization.
- 3.112 hot water urn:** A device for heating, storing, and dispensing hot water used to prepare foods. This term does not include water heaters or instantaneous water heaters.
- 3.113 ice cream cabinet:** A mechanically refrigerated unit for storing frozen desserts.
- 3.114 ice pan or container:** A pan or container used for storing ice intended for human consumption.
- 3.115 ice storage bin:** See *bin – ice storage bin*.
- 3.116 inset:** A pan or container used with, but not limited to, a wet or dry, hot or cold, display or preparation type of equipment.
- 3.117 integral:** Joined as one piece.
- 3.118 jacketed kettle:** Equipment used to process food by a heat exchange jacket.
- 3.119 leak proof liner:** A liner that, when placed into a refuse container, creates a barrier across which liquids cannot pass under normal use conditions, including when the liner is in place and during removal of the liner from the container.
- 3.120 leg:** A fixed or adjustable support extending beneath equipment to the floor or countertop.
- 3.121 lid:** A device used to close access openings.
- 3.122 line pressure:** The pressure, as shown by a gauge in a water, steam, or gas line, read at a time when all outlets are closed and no water, steam, or gas is flowing (static pressure).
- 3.123 lining:** The interior surface of a compartment.
- 3.124 liquid level:** (1) (As applied to sinks and plumbing fixtures) the maximum vertical distance of a liquid in a contained receptacle or bowl; or (2) (As applied to other food equipment) the desired vertical distance of a liquid as maintained by an indicating mark on a contained receptacle or bowl.
- 3.125 lockout:** A device that automatically shuts down the ability of a unit to perform its intended function.
- 3.126 manual cleaning:** Cleaning by hand with appropriate cleaning tools.
- 3.127 maximum effective airstream height:** (As used in NSF/ANSI 37) manufacturer specified value indicating the maximum height of the airstream in compliance with the applicable performance test protocol in Section 6. This value is measured from the bottom of the airstream discharge nozzle.
- 3.128 maximum effective airstream width:** (As used in NSF/ANSI 37) manufacturer specified value indicating the maximum width of the airstream in compliance with the applicable performance test protocol in Section 6.
- 3.129 mechanical sanitization:** The process of sanitizing product contact surfaces by circulating or passing sanitizing solutions throughout a system that has previously been disassembled and manually cleaned and sanitized.
- 3.130 microwave oven:** An oven in which foods are heated and/or cooked when they absorb microwave energy (short electromagnetic waves) generated by a magnetron(s).

**3.131 milk:** Milk and milk products as defined in the Code of Federal Regulations, Title 21, Part 131 (21 CFR 131).<sup>4</sup> This term includes similar products that are made by adding substances to milk or milk products.

**3.132 mixer:** Equipment used to mix or blend food to a desired consistency.

**3.133 mobile:** Mounted on casters, gliders, or similar devices that allow the equipment to be moved easily along a surface.

**3.134 mobile food cart:** A food service unit intended for manual, nonmotorized transport from an area where the unit is serviced to another area where the food is served. This term applies to units intended for the preparation of food, as well as those that are intended for the display and service of prepackaged food in its original container without further preparation.

**3.135 moderate effect:** (As used in NSF/ANSI 35) a difficult to perceive stain visible from all angles and directions. Any change in gloss due to the cleaning procedure is permitted (refer to NEMA LD3 – 2005).<sup>5</sup>

**3.136 multiple tank conveyor machine:** A conveyor machine that has one or more tanks for wash water and one or more tanks for pumped rinse water, followed by a final sanitizing rinse. This type of machine may include a prewashing section before the washing section and an auxiliary rinse section between the power rinse and final rinse section.

**3.137 no effect:** (As used in NSF/ANSI 35) all stain reagents removed with no impairment to surface appearance. Any change in gloss due to the cleaning procedure is permitted (refer to NEMA LD3 – 2005).<sup>5</sup>

**3.138 nonabsorbent material:** Material that, under the intended conditions of its use, does not retain substance with which it comes in contact, so as to have no adverse affect on the hygiene of the product.

**3.139 nonpotentially hazardous food:** A food not included in the definition of potentially hazardous food (see *potentially hazardous food*).

**3.140 nonrecirculating pumped final sanitizing rinse:** A freshwater rinse that is pumped once over wares and achieves sanitization using either chemical sanitizers or high temperature.

**3.141 nonwork surface:** A surface that is not routinely used to perform a task, operation, or activity.

**3.142 original sealed package:** A container in which food is packaged at the time of harvest or processing that prevents the entry or leakage of unwanted matter.

**3.143 oven:** A chamber designed for heating, roasting, or baking food by conduction, convection, radiation, and/or electromagnetic energy.

**3.144 overflow level:** (1) (As applied to sinks and plumbing fixtures) the desired vertical distance of a liquid by a drainage system in a contained receptacle or bowl. This level is always less than the liquid level; or (2) (As applies to other food equipment) the maximum vertical distance of a liquid in a contained receptacle or bowl.

**3.145 packaged:** Bottled, canned, cartoned, securely bagged, or securely wrapped in a sealed container.

**3.146 packaged food:** Food that is bottled, canned, cartoned, securely bagged, or securely wrapped in a sealed container.

- 3.147 parts per million (ppm):** A unit of concentration. 1 part per million (ppm) = 1 milligram per liter (mg/L).
- 3.148 pasta maker:** Equipment used to extrude, press, or shape dough into pasta.
- 3.149 patty machine:** Equipment used to press or extrude meat or other food into a variety of sizes and shapes.
- 3.150 peeler:** Equipment used to remove outer peeling or skin from food by abrasion.
- 3.151 pH:** The negative log of the hydrogen ion concentration, which is a measure of the degree of acidity or alkalinity of a solution.
- 3.152 pipe chase:** An enclosure designed to contain utility lines. (Pipe chases are also known as service chases.)
- 3.153 plunger:** A sliding or rotating piece used to push or force food through a food equipment passage.
- 3.154 portable:** Intended to be manually lifted and moved between periods of operation.
- 3.155 pot, pan, and utensil washing machine:** A machine designed to clean and sanitize pots, pans, and kitchen utensils by applying sprays of detergent solutions (with or without blasting media granules) and a sanitizing final rinse.
- 3.156 potentially hazardous food:** See *time / temperature control for safety (TCS) food*.
- 3.157 prepackaged food:** (As used in NSF/ANSI 59) food that is packaged, wrapped, or otherwise contained as intended for service, prior to display or storage in or on a mobile food cart.
- 3.158 pressure cooker:** An enclosed and sealed cabinet with doors or cover in which steam is generated for heating, cooking, and reconstituting food at greater than atmospheric pressure.
- 3.159 prewashing unit:** A separate or attached component that applies sprays of fresh or recirculated water to remove gross particles of food and debris from wares before they are washed.
- 3.160 product:** (As used in NSF/ANSI 6) the pasteurized mix and other pasteurized ingredients (soft ice cream, ice milk, malts, custards, yogurt, and similar frozen desserts) that are intended to be dispensed from a dispensing freezer.
- 3.161 proofing box / cabinet:** An enclosed mobile, portable, or stationary appliance designed to maintain the proper temperature and relative humidity for proofing dough products prior to baking.
- 3.162 pulper:** A refuse processor intended to macerate food waste and nonfood waste refuse into a wet slurry directed to a water press or other water extraction system to produce a semidry pulp.
- 3.163 pumped rinse:** Recirculated water that is pumped from a tank and sprayed onto dishes after washing and before the final sanitizing rinse is applied.
- 3.164 pyrolysis:** A process of decomposition by the action of heat.
- 3.165 pyrolytic self-cleaning oven:** An oven in which accumulated soils may be removed from interior surfaces by exposure to heat and without the aid of manual cleaning.
- 3.166 rack:** (1) A multipurpose device that readily receives and holds trays, platters, and pans for the short-term storage of food and/or dishes, utensils, and the like; (2) (As used in NSF/ANSI 3) a device

upon which dishes, pots, pans, and/or utensils are placed for insertion into a warewashing machine.

**3.167 radiant heat source:** A source transmitting heat energy by wave motion (in contrast to heat transmitted by conduction or convection).

**3.168 range:** A multipurpose unit used for surface cooking, baking, roasting, broiling, grilling, or any combination of these methods.

**3.168.1 fry top range:** A range, the top of which is a griddle.

**3.168.2 hot top range:** A range on which the top heating elements or burners are completely covered. The top does not directly contact food.

**3.168.3 open top range:** A range on which the top heating elements and/or grates are exposed.

**3.169 readily accessible:** Manufactured to be exposed for cleaning and inspection without the use of tools.

**3.170 readily removable:** Capable of being detached and taken away from the parent unit without the use of tools.

**3.171 recirculating final sanitizing rinse:** Fresh water that is pumped repeatedly over wares and achieves sanitization using either chemical sanitizers or high temperature.

**3.172 reel-type oven (revolving tray oven):** An oven with a motor-driven Ferris wheel device.

**3.173 refrigerated food preparation unit:** Equipment designed with a refrigerated open top or open condiment rail such as refrigerated sandwich units, pizza preparation tables, and similar equipment. The unit may or may not be equipped with a lower refrigerated compartment.

**3.173.1 refrigerator:** Equipment designed to enclose an area of mechanically refrigerated and temperature-controlled air used to maintain prescribed cold food holding temperatures.

**3.173.2 remote refrigerator:** A refrigerator whose compressor or condensing unit is a component separate from the refrigerated unit.

**3.173.3 self-contained refrigerator:** A refrigerator whose condensing unit is attached as an integral component of the unit.

**3.173.4 storage freezer:** A refrigerator designed for the storage of frozen food.

**3.173.5 storage refrigerator:** A refrigerator designed for the cold storage of nonfrozen foods between periods of preparation, service, display, or sale.

**3.173.6 walk-in refrigerator:** An enclosed, mechanically refrigerated, and temperature-controlled room with integral walls, floor, and ceiling used to maintain prescribed cold food holding temperatures.

### **3.174 refrigerators and freezers**

**3.174.1 batch dispensing freezer:** A dispensing freezer that is designed to freeze and immediately dispense single batches of product and is intended to remain empty between periods of use.

**3.174.2 beverage cooler:** A refrigerator intended solely for the storage and/or display of packaged beverage products that are not potentially hazardous foods, such as soda (pop), beer, and wine.

**3.174.3 dispensing freezer:** A device that processes, freezes, and dispenses soft-served frozen

product or that dispenses premanufactured frozen product.

**3.174.4 display refrigerator:** (As used in NSF/ANSI 7) a refrigerator designed to display frozen foods, nonfrozen foods, or both to the consumer for purchase in areas where the environmental conditions are controlled and maintained. This term does not include refrigerated buffet units or refrigerated food preparation units.

**3.174.4.1 closed display refrigerator:** A display refrigerator in which the product is accessible for removal by opening a hinged or sliding door(s). This term may apply to Type I or Type II display refrigerators.

**3.174.4.2 display freezer:** A refrigerator designed to display frozen foods.

**3.174.4.3 open display refrigerator:** A display refrigerator in which the refrigerated space is isolated from the ambient environment by an air curtain or other means, and the food is able to be removed without opening doors or moving panels. This term may apply to Type I or Type II display refrigerators.

**3.174.4.4 self-service display refrigerator:** An open or closed display refrigerator designed for customer access to packaged foods (including unprocessed produce). This term may apply to Type I or Type II display refrigerators.

**3.174.4.5 self-service display refrigerator with automatic lockout:** A closed self-service display refrigerator that is equipped with an automatic locking system designed to lock the doors when proper operating conditions are not maintained. This term may apply to Type I or Type II display refrigerators.

**3.174.4.6 service display refrigerator:** A display refrigerator designed for operator (employee) access to packaged or unpackaged foods contained inside. This term may apply to Type I or Type II display refrigerators.

**3.174.4.7 Type I display refrigerator:** A display refrigerator intended for use in an area where the environmental conditions are controlled and maintained so that the ambient temperature does not exceed 75 °F (24 °C).

**3.174.4.8 Type II display refrigerator:** A display refrigerator intended for use in an area where the environmental conditions are controlled and maintained so that the ambient temperature does not exceed 80 °F (27 °C).

**3.174.5 frost top refrigeration unit:** A mechanically refrigerated flat / horizontal surface that is intended for placement of cold foods awaiting service and is not intended to maintain prescribed cold food holding temperatures.

**3.174.6 rapid pull-down refrigerator:** A refrigerator specifically designed for rapid intermediate chilling of food products within a specified time period. These units are also known as blast chillers and blast freezers.

**3.174.7 refrigerated buffet unit:** Equipment designed with mechanical refrigeration that is intended to receive refrigerated food and maintain food product temperatures and is intended for customer self-service, such as a salad bar. A unit may or may not be equipped with a lower refrigerated compartment.

**3.175 refuse:** Waste in a solid or liquid form that is capable of putrefaction. Refuse does not include human or industrial process waste.

**3.176 refuse contact surfaces:** Container surfaces intended to be in contact with refuse and with surfaces from which refuse may drain, drip, or splash back onto surfaces intended to be in contact with refuse.

- 3.177 refuse container:** A receptacle for the storage and handling of refuse.
- 3.178 refuse processing system:** The refuse processor, containers, and all other ancillary equipment.
- 3.179 refuse processors:** A machine or apparatus intended for refuse processing and generally meeting the definition of compactor, disposer, or pulper.
- 3.180 removable:** Capable of being detached and taken away from the parent unit and reattached to the parent unit with the use of simple tools.
- 3.181 rethermalization equipment:** Equipment designed to rapidly reheat foods that have been previously cooked and chilled.
- 3.182 rinse, chemical sanitizing:** A solution of chemical sanitizing agent and water that is sprayed onto cleaned dishes to achieve sanitization.
- 3.183 rinse, hot water sanitizing:** Water that is heated and sprayed onto cleaned dishes to achieve sanitization.
- 3.184 rinse, postsanitizing:** Using sprays of fresh, potable water applied after the sanitizing step.
- 3.185 rinse, sanitizing:** A solution of water that is either heated or uses chemical sanitizing agent and is sprayed onto cleaned dishes to achieve sanitization.
- 3.186 rotisserie:** An appliance with a device or mechanism to move or turn food for cooking by direct exposure of all surfaces to radiant energy.
- 3.187 salamander broiler (back-shelf broiler):** A broiler that is normally mounted above the rear of a range and has overhead heating radiants or elements and an adjustable sliding grill.
- 3.188 sanitization:** The application of cumulative heat, chemicals, or other approved agents on clean surfaces that is sufficient to reduce the population of disease organisms by 99.999% (5 log reduction).
- 3.189 sanitizing solution:** A chemical solution used to achieve sanitization.
- 3.190 saw:** Equipment containing a continuous or reciprocating blade that is used to cut foods.
- 3.191 sealed:** Manufactured without openings, to prevent entry or leakage of liquid or moisture.
- 3.192 security fastener:** A specifically designed fastener that requires a special tool for installation or removal.
- 3.193 self-draining:** The combination of design, construction, installation, and surface finish so as to prevent the retention of liquid except to normal surface wetting.
- 3.194 service window:** An opening through which food is moved.
- 3.195 serving and display ware:** Implements used in a food establishment (e.g., plates, platters, dishes, bowls, and utensils) that are intended to be used solely for holding, dispensing, and/or display of prepared foods and are not intended to be used for food preparation or processing. Serving and display ware does not include flatware.
- 3.196 shelf:** A relatively horizontal surface used for holding and storage and not as a working surface.
- 3.197 shelf standard:** The portion of a display refrigerator designed to accept the shelf support system.



**3.198 shelf support system:** An assembly that supports a display refrigerator shelf and that may or may not be integral with the shelf.

**3.199 simple tools:** Hand tools commonly available to food establishment maintenance and cleaning personnel, such as screwdrivers, pliers, open-ended wrenches, and Allen wrenches.

**3.200 single service articles:** Articles manufactured in whole or in part from paper, paperboard, molded pulp, foil, wood, plastic, or other readily destructible materials that are designed to be used once and discarded.

**3.201 single tank conveyor machine:** A conveyor machine that has a tank for wash water followed by a final sanitizing rinse. This type of machine does not have a pumped rinse tank. This type of machine may include a prewashing section ahead of the washing section and an auxiliary rinse section between the power rinse and final rinse sections.

**3.202 sink:** A unit containing one or more sink compartment bowls and used for, but not limited to, cleaning and sanitizing utensils, preparing foods, and/or maintenance. The sink may contain the following components.

**3.202.1 sink backsplash:** See *backsplash*.

**3.202.2 sink compartment bowl:** The component of a sink that holds water.

**3.202.3 sink compartment drain:** An opening in the bowl used as an outlet to drain liquid to waste.

**3.202.4 sink drainboard:** A fixed, rigid, and relatively horizontal surface that is smooth and may be embossed or corrugated and is sloped to the sink compartment bowl to allow drainage of liquids from stored equipment and utensil surfaces.

**3.203 slight effect:** (As used in NSF/ANSI 35) a change in color or surface finish only visible at certain angles or directions (refer to NEMA LD3 – 2005).<sup>5</sup>

**3.204 smooth:** Free of pits, pinholes, cracks, crevices, inclusions, rough edges, and other surface imperfections detectable by visual and tactile inspection.

**3.205 soil:** Unwanted matter.

**3.206 solid surface material:** A solid material with uniform composition throughout used in the manufacture of equipment surfaces.

NOTE — Solid surface materials include, but are not limited to, polyester, acrylic, engineered stone and quartz / resin-based materials.

**3.207 special tool:** A specifically designed tool that is used to install or remove a particular security fastener.

**3.208 spreader plate:** A solid piece of material that extends between two appliances to form a complete assembly, or a top enclosure mounted on one end of a range or other cooking unit.

**3.209 standby mode:** (As used in NSF/ANSI 6) a mode of equipment operation intended to conserve energy and avert product breakdown.

**3.210 stationary rack machine:** A warewashing machine in which a rack of dishes remains stationary within the machine while subjected to sequential wash and rinse sprays. This term also applies to machines in which the rack revolves on an axis during the wash and rinse cycles.

**3.211 steam cooker:** Equipment in which steam is used for heating, cooking, and reconstituting food at atmospheric pressure.

**3.212 substrate:** The structural surface to which a coating or laminate is applied.

**3.213 supplemental flooring:** (As used in NSF/ANSI 52) floor coverings that are intended for specific applications and are readily removable.

**3.213.1 general purpose surface:** (As used in NSF/ANSI 52) supplemental flooring designed for use in food preparation, serving, and dry storage areas or cooking and warewashing areas with occasional spillage.

**3.213.2 heavy duty:** (As used in NSF/ANSI 52) supplemental flooring for use in areas subject to substantial spillage of oils and detergent water (e.g., cooking and warewashing areas).

**3.214 tableware:** Items for table use such as flatware, dishes, plates, bowls, saucers, cups, tumblers, compartmentalized trays, and covers that may be in direct contact with food.

**3.215 tenderizer:** Equipment with multiple blades to cut, tenderize, or knit meat.

**3.216 textured:** Having a surface onto which a pattern has been established to obtain a desired visual or tactile effect and which may hinder the removal of soil from the surface during cleaning.

**3.217 thermoplastics:** Plastic that can be repeatedly softened by heating and hardened by cooling through a temperature range characteristic of the plastics. In the softened state, the plastic can be shaped by flow into articles by molding or extrusion.

**3.218 thermostat:** A device used to maintain the desired temperature.

**3.219 thrust bearing:** A bearing, usually having rolling elements to reduce friction between the sliding components, used to support loads parallel to the axis of rotation.

**3.220 thrust washer:** A plain bearing (no rolling elements) having sliding surfaces and used to support loads parallel to the axis of rotation.

**3.221 tight-fitting:** Manufactured with no space exceeding  $\frac{1}{64}$  in (0.016 in, 0.40 mm).

**3.222 tilting griddle skillet:** A combination griddle and skillet with a mechanical or electrical tilting mechanism mounted on a floor stand or counter or suspended from wall brackets, used for food processing (e.g., braising, sautéing, boiling, frying). Tilting griddle skillets are also known as braising pans.

**3.223 time / temperature control for safety (TCS) food** (formerly known as “potentially hazardous food”): (1) A food that requires time / temperature control for safety to limit pathogenic microorganism growth or toxin formation. (2) Time / temperature control for safety food includes:

- animal food (a food of animal origin) that is raw or heat-treated;
- food of plant origin that is heat-treated or consists of raw seed sprouts;
- cut melons;
- cut leafy greens;

NOTE — Cut leafy greens means fresh leafy greens whose leaves have been cut, shredded, sliced, chopped, or torn. Examples include iceberg lettuce, romaine lettuce, leaf lettuce, butter lettuce, baby

leaf lettuce (i.e., immature lettuce or leafy greens), escarole, endive, spring mix, spinach, cabbage, kale, arugula and chard. It does not include herbs such as cilantro or parsley, or whole heads of lettuce, or other raw agricultural commodities. 'Cut' does not include removing and discarding exterior leaves, which is a common practice for display in retail food establishments.

- cut tomatoes or mixtures of cut tomatoes that are not modified in a way so that they are unable to support pathogenic microorganism growth or toxin formation; and
- garlic-in-oil mixtures that are not acidified or otherwise modified at a food processing plant in a way that results in mixtures that do not support pathogenic microorganism growth or toxin formation;

(3) Time / temperature control for safety food does not include:

- an air-cooled hard-boiled egg with shell intact, or a shell egg that is not hard-boiled but has been treated to destroy all viable salmonellae; or
- a food having water activity ( $a_w$ ) value of less than 0.88; or
- a food with a pH of less than 4.2; or
- a food, in an unopened hermetically sealed container, that is commercially processed to achieve and maintain commercial sterility under conditions of nonrefrigerated storage and distribution; or
- a food for which laboratory evidence demonstrates that rapid and progressive growth of infectious or toxigenic microorganisms or the growth of *S. enteritidis* in eggs or *C. botulinum* cannot occur, as defined previously in this section, and that may contain a preservative, other barrier to the growth of microorganisms, or a combination of barriers that inhibit the growth of microorganisms; or
- a food that does not support the growth of microorganisms as specified under part (1) of this definition, even though the food may contain an infectious or toxigenic microorganism or chemical or physical contaminant at a sufficient level to cause illness.

**3.224 toxic:** Having an adverse physiological effect on humans.

**3.225 tray slide or rail:** A horizontal surface to accommodate the width of a tray, extended out from a buffet unit or cafeteria countertop. May be constructed of solid material, with or without raised edges, or of several rails or bars.

**3.226 under bar equipment:** Equipment under the bar top including, but not limited to, sinks, drainboards, cocktail mix stations, ice storage chests, beverage coolers, and glass washers, on the operator's side.

**3.227 utensils:** Implements used in the preparation, service, transportation, or storage of food.

**3.228 vacuum breaker:** A device that decreases the vacuum formed in water supply lines that could cause backflow.

**3.229 variable capacity compressor:** Refrigeration compressor with the ability of adjusting its capacity through the change of its internal motor speed, according to the refrigeration demands of the appliance.

**3.230 vending machine:** A self-service device that, upon insertion of a coin, paper currency, token, card, key, or optional manual operation, dispenses unit servings of food, in bulk or in packages, without the necessity of replenishing the device before or after each vending operation. Unless otherwise stated, the term includes controlled location vending machines.

**3.231 vermin:** Noxious or objectionable animals or insects of common occurrence and difficult to

control, especially those of small size.

**3.232 wares:** All types of implements used in a food service establishment, including dishes, pots, pans, and utensils.

**3.233 warewashing machine:** A dishwashing, glasswashing, or pot, pan, and utensil washing machine.

**3.234 washing:** Subjecting all surfaces of wares to sprays of a hot water and detergent solution for the purpose of removing food, grease, and other soiling material.

**3.235 water bath:** A body of water used as a secondary medium to heat or cool product.

**3.236 water heater:** An enclosed vessel or container that stores and heats water within.

**3.236.1 booster heater:** A water heater that raises the temperature of preheated water 40 to 80 °F (22 to 44 °C). The preheated water is supplied to the unit at temperatures that are typically between 100 and 140 °F (38 to 60 °C).

**3.236.2 circulating water heater:** A water heater that is used with an external storage tank and is thermostatically controlled to circulate water through the external storage tank and back to the heater to be reheated.

**3.236.3 instantaneous water heater**

**3.236.3.1 tank-type instantaneous water heater:** An automatic, thermostatically controlled water heater that has an input rating of at least 4,000 BTU/h per gal (0.30 kWh/L) of stored water.

**3.236.3.2 watertube-type instantaneous water heater:** An automatic, self-contained water heater that requires water flow to activate the heat source and does not utilize a separate hot water storage tank.

**3.236.4 storage water heater:** A water heater that heats and stores water within the appliance at a thermostatically controlled temperature for delivery on demand, and that has an input rating of less than 4,000 BTU/h per gal (0.30 kWh/L) of stored water.

**3.237 water station:** A section of a counter or stand with a glass and/or pitcher filling faucet and drain trough.

**3.238 wearing surfaces:** (As used in NSF/ANSI 52) surfaces in contact with other surfaces, food products, ingredients, air streams, cleaning and sanitizing solutions, or other materials that may cause abrasive or disruptive surface force.

**3.239 wheeled food service equipment:** Equipment on casters or wheels that can be easily moved for auxiliary food processing or service. This term does not include licensed motor vehicles.

**3.240 work surface:** Horizontal surface on which a task, operation, or activity is routinely performed (e.g., countertop).

**3.241 zones**

**3.241.1 exterior zone:** That portion of the equipment or device not included in the refuse contact and/or power zones.

**3.241.2 food zone:** Equipment surfaces intended to be in direct contact with food and equipment surfaces that food or condensate may contact and then drain, drip, or splash back into food or onto surfaces that are intended to be in direct contact with food.

**3.241.3 heated food zone:** Food zone surfaces that maintain a minimum temperature of 180 °F (82 °C) during normal operation.

**3.241.4 nonfood zone:** Exposed equipment surfaces other than those in a food or splash zone.

**3.241.5 power zone:** The area consisting of and housing the processing mechanism, power mechanism, or electrical components.

**3.241.6 refuse contact zone:** The parts of a refuse processor and the processing chamber in direct contact with the refuse, including, but not limited to, the area that receives the refuse for compaction (e.g., chute, hopper, ram head, refuse container, bag holder).

**3.241.7 splash zone:** Equipment surfaces, other than those in a food zone, that are subject to splash, spillage, or other food soiling during operation of the equipment.

**3.241.8 unexposed nonfood zone:** Enclosed areas that are unexposed under normal use conditions. Included in this definition are areas that are inaccessible or are designed to be accessed only for maintenance and/or service through means including but not limited to covers, panels, or doors that are removable, readily removable, sliding, or hinged.

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## Informative Annex 1

### Food Equipment Joint Committee<sup>7</sup>

*The information contained in this Annex is not part of the American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for ANS. As such, this Annex 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.*

Name	Company / organization	Interest category
Bhatt, Swati	Los Angeles County	Regulatory
Bortolotti, Stefano	Carpigiani	Industry
Brandt, Rex <sup>1</sup>	Taylor Company	Industry
Brania, Jonathan <sup>1</sup>	UL LLC	User
Brasseur, Eric	Little Caesars Enterprises	User
Burton-Zick, Sara	DuPage County Health Department	Regulatory
Casey, Robert	Publix Super Markets, Inc.	User
Finkelstein, Burl <sup>1</sup>	Kason Industries	Industry
Gagliardi, Tony <sup>1</sup>	Consultant – Public Health / Regulatory	User
Glynn, Beth, REHS	Starbucks Coffee Company	User
Hall, Jon	Glastender, Inc.	Industry
Hipp, Joel <sup>1</sup>	Hobart Corporation	Industry
Jumalon, Thomas, REHS	North Carolina Department of Health & Human Services Food Protection Branch	Regulatory
Kohler, Mike	NSF International	User
Leonard, James, MPH, LEHP	Princess Cruises	User
Liggans, Girvin, PhD	Food and Drug Administration	Regulatory
Melaragno, Danielle	Intertek	User
Morgan, Leslie, REHS, CPO	City of Lubbock, Texas	Regulatory
Negandhi, Dipak, PE, CFSP-1 <sup>1</sup>	A.O. Smith	Industry
Neshan, Massoud	Arneg USA	Industry
Olivarez, Katita	City of San Marcos Environmental Health	Regulatory
Perez, Michael <sup>2</sup>	Baring Industries	User
Petersen, Rick	Norwalk Community College	Regulatory
Petersen Jr., James <sup>1</sup>	C.i.i. Food Service Design	User
Rizvi, Syed	Marmon Foodservice Technologies	Industry
Rodriguez, Luis, MS	CDC Vessel Sanitation Program	Regulatory
Samarya-Timm, Michéle <sup>1</sup>	Somerset County Department of Health	Regulatory
Scanlon, John <sup>1</sup>	Hatco Corp.	Industry
Schaefer, Stephen <sup>1</sup>	Hoshizaki America, Inc.	Industry
Sickles, Willard, PE <sup>1</sup>	InterMetro Industries Corporation	Industry
Ungerecht, Craig	National Park Service	Regulatory
Webb, Timothy, MS, REHS	Navy and Marine Corps Public Health Center	Regulatory

<sup>7</sup> Food Equipment Joint Committee members on the date of publication – subject to change.

Name	Company / organization	Interest category
<p><sup>1</sup> Task Group Chair</p> <p><sup>2</sup> Joint Committee Chair (nonvoting)</p> <p>Joint Committee Secretariat: Al Rose, NSF International</p> <p>Membership balance:    Industry: 11    Regulatory: 11    User: 10</p>		

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## Standards<sup>8</sup>

The following Standards established and adopted by NSF as minimum voluntary consensus Standards are used internationally:

Std. #	Standard title
2	Food Equipment
3	Commercial Warewashing Equipment
4	Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transport Equipment
5	Water Heaters, Hot Water Supply Boilers, and Heat Recovery Equipment
6	Dispensing Freezers
7	Commercial Refrigerators and Freezers
8	Commercial Powered Food Preparation Equipment
12	Automatic Ice Making Equipment
13	Refuse Processors and Processing Systems
14	Plastics Piping System Components and Related Materials
18	Manual Food and Beverage Dispensing Equipment
20	Commercial Bulk Milk Dispensing Equipment
21	Thermoplastic Refuse Containers
24	Plumbing System Components for Recreational Vehicles
25	Vending Machines for Food and Beverages
29	Detergent and Chemical Feeders for Commercial Spray-Type Dishwashing Machines
35	High Pressure Decorative Laminates for Surfacing Food Service Equipment
37	Air Curtains for Entrancesways in Food and Food Service Establishments
40	Residential Wastewater Treatment Systems
41	Non-liquid Saturated Treatment Systems
42	Drinking Water Treatment Units – Aesthetic Effects
44	Residential Cation Exchange Water Softeners
46	Evaluation of Components and Devices Used in Wastewater Treatment Systems
49	Biosafety Cabinetry – Design, Construction, Performance, and Field Certification
50	Equipment and Chemicals for Swimming Pools, Spas, Hot Tubs, and Other Recreational Water Facilities
51	Food Equipment Materials
52	Supplemental Flooring
53	Drinking Water Treatment Units – Health Effects
55	Ultraviolet Microbiological Water Treatment Systems
58	Reverse Osmosis Drinking Water Treatment Systems
59	Mobile Food Carts
60	Drinking Water Treatment Chemicals – Health Effects
61	Drinking Water System Components – Health Effects
62	Drinking Water Distillation Systems
140	Sustainable Carpet Assessment
169	Special Purpose Food Equipment and Devices
170	Glossary of Food Equipment Terminology
173	Dietary Supplements

<sup>8</sup> The information contained in this list of Standards 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 Standards page 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.

Std. #	Standard title
177	Shower Filtration Systems – Aesthetic Effects
184	Residential Dishwashers
223	Conformity Assessment Requirements for Certification Bodies that Certify Products Pursuant to NSF/ANSI/CAN 60: Drinking Water Treatment Chemicals – Health Effects
244	Drinking Water Treatment Units Supplemental Microbiological Water Treatment Systems – Filtration
245	Wastewater Treatment Systems – Nitrogen Reduction
305	Personal Care Products Containing Organic Ingredients
321	Goldenseal Root ( <i>Hydrastis canadensis</i> )
330	Glossary of Drinking Water Treatment Unit Terminology
332	Sustainability Assessment for Resilient Floor Coverings
336	Sustainability Assessment for Commercial Furnishings Fabric
342	Sustainability Assessment for Wallcovering Products
347	Sustainability Assessment for Single-Ply Roofing Membranes
350	Onsite Residential and Commercial Water Reuse Treatment Systems
350-1	Onsite Residential and Commercial Greywater Treatment Systems for Subsurface Discharge
358-1	Polyethylene Pipe and Fittings for Water-Based Ground-Source “Geothermal” Heat Pump Systems
358-2	Polypropylene Pipe and Fittings for Water-Based Ground-Source “Geothermal” Heat Pump Systems
358-3	Cross-linked Polyethylene (PEX) Pipe and Fittings for Water-based Ground-Source (Geothermal) Heat Pump Systems
358-4	Polyethylene of Raised Temperature (PE-RT) Tubing and Fittings for Water-based Ground-Source (Geothermal) Heat Pump Systems
359	Valves for Cross-linked Polyethylene (PEX) Water Distribution Tubing Systems
360	Wastewater Treatment Systems – Field Performance Verification
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***THE HOPE OF MANKIND rests in the  
ability of man to define and seek out  
the environment which will permit him  
to live with fellow creatures of the  
earth, in health, in peace, and in  
mutual respect.***