Subtitle

D

Equipment, Utensils, and Linens

Chapters

Chapter 14 MATERIALS USED FOR CONSTRUCTION AND REPAIR

Sections

1400 MULTIUSE – CHARACTERISTICS*

1400.1 Materials that are used in the construction of ***utensils*** and ***food-contact surfaces*** of ***equipment*** shall not allow the migration of deleterious substances, or impart colors, odors, or tastes to ***food***, and under normal use conditions shall be:

(a) Safe;

(b) Durable, corrosion-resistant, and nonabsorbent;[N]

(c) Sufficient in weight and thickness to withstand repeated warewashing;[N]

(d) Finished to have a smooth, ***easily cleanable*** surface;[N] and

(e) Resistant to pitting, chipping, ***crazing***, scratching, scoring, distortion, and decomposition.[N]

1401 MULTIUSE – CAST IRON, USE LIMITATION

1401.1 Cast iron may not be used for utensils or ***food-contact surfaces*** of ***equipment***, except as specified in sections 1401.2 and 1401.3.

1401.2 Cast iron may be used as a surface for cooking.

1401.3 Cast iron may be used in utensils for serving ***food*** if the utensils are used only as part of an uninterrupted process from cooking through service.

1402 MULTIUSE – LEAD IN CERAMIC, CHINA, AND CRYSTAL UTENSILS, USE LIMITATION

1402.1 Ceramic, china and crystal utensils, and decorative utensils, such as hand painted ceramic or china that are used in contact with ***food***, shall be lead-free or contain levels of lead not exceeding the limits of the following utensil categories:

Utensil Category	Description	Maximum Lead mg/L
Hot ***beverage*** mugs	Coffee mugs	0.5
Large Hollowware	Bowls $\geq$ 1 liter (1.16 quart)	1
Small Hollowware	Bowls < 1.1 liter (1.16 quart)	2.0
Flat Utensils	Plates, Saucers	3.0

1403 MULTIUSE – COPPER, USE LIMITATION*

1403.1 Copper and copper alloys such as brass may not be used in contact with acidic ***food*** that has a pH below six (6) such as vinegar, fruit juice, or wine or for a fitting or tubing installed between a backflow prevention device and a carbonator, except as specified in section 1403.2.

1403.2 Copper and copper alloys may be used in contact with beer brewing ingredients that have a pH below six (6) in the prefermentation and fermentation steps of a beer brewing operation such as a brewpub or microbrewery.

1404 MULTIUSE – GALVANIZED METAL, USE LIMITATION*

1404.1 Galvanized metal may not be used for utensils or ***food-contact surfaces*** of ***equipment*** that are used in contact with acidic ***food*** that has a pH below (six) 6 such as vinegar, fruit juice or wine.

1405 MULTIUSE – SPONGES, USE LIMITATION

1405.1 Sponges may not be used in contact with cleaned and sanitized or in-use ***food-contact surfaces***.

1406 MULTIUSE – LEAD IN PEWTER ALLOYS, USE LIMITATION

1406.1 Pewter alloys containing lead in excess of 0.05% may not be used as a ***food-contact surface***.

1407 MULTIUSE – LEAD IN SOLDER AND FLUX, USE LIMITATION

1407.1 Solder and flux containing lead in excess of 0.2% may not be used as a ***food-contact surface***.

1408 MULTIUSE – WOOD, USE LIMITATION

1408.1 Wood and wood wicker may not be used as a ***food-contact surface***, except as specified in this section.

1408.2 Hard maple or an equivalently hard, close-grained wood may be used for:

(a) Cutting boards; cutting blocks; bakers' tables; and utensils such as rolling pins, doughnut dowels, salad bowls, and chopsticks; and

(b) Wooden paddles used in confectionery operations for pressure scraping kettles when manually preparing confections at a temperature of 110°C (230°F) or above.

1408.3 Whole, uncut, raw fruits and vegetables, and nuts in the shell may be kept in the wood shipping containers in which they were received, until the fruits, vegetables, or nuts are used.

1408.4 If the nature of the ***food*** requires removal of rinds, peels, husks, or shells before consumption, the whole, uncut, raw ***food*** may be kept in:

(a) Untreated wood containers; or

(b) Treated wood containers if the containers are treated with a preservative that meets the requirements specified in 21 CFR 178.3800 − Preservatives for wood.

1409 MULTIUSE – NONSTICK COATINGS, USE LIMITATION

1409.1 Multiuse kitchenware such as frying pans, griddles, sauce pans, cookie sheets, and waffle bakers that have a perfluorocarbon resin coating shall be used with nonscoring or nonscratching utensils and cleaning aids.

1410 MULTIUSE – NONFOOD-CONTACT SURFACES EXPOSED TO FOOD SOILING

1410.1 Nonfood-contact surfaces of ***equipment*** that are exposed to splash, spillage, or other ***food*** soiling or that require frequent cleaning shall be constructed of a corrosion-resistant, nonabsorbent, and smooth material.

1411 SINGLE-SERVICE AND SINGLE-USE – CHARACTERISTICS *

1411.1 Materials that are used to make ***single-service*** and ***single-use articles*** may not

(a) Allow the migration of deleterious substances; or

(b) Impart colors, odors, or tastes to ***food***.[N]

1411.2 Materials that are used to make ***single-service*** and ***single-use articles*** shall be:

(a) Safe; and

(b) Clean.[N]

Chapter 15 DESIGN AND CONSTRUCTION

Sections

1500 DURABILITY AND STRENGTH – EQUIPMENT AND UTENSILS

1500.1 ***Equipment*** and utensils shall be designed and constructed to be durable and to retain their characteristic qualities under normal use conditions.

1501 DURABILITY AND STRENGTH – FOOD TEMPERATURE MEASURING DEVICES*

1501.1 ***Food*** temperature measuring devices shall not have sensors or stems constructed of glass, except that thermometers with glass sensors or stems that are encased in a shatterproof coating such as candy thermometers may be used.

1502 CLEANABILITY – FOOD-CONTACT SURFACES*

1502.1 Multiuse ***food-contact surfaces*** shall be:

(a) Smooth;

(b) Free of breaks, open seams, cracks, chips, pits, inclusions, and similar imperfections;

(c) Free of sharp internal angles, corners, and crevices; and

(d) Finished to have smooth welds and joints.

1502.2 Multiuse ***food-contact surfaces*** shall be accessible for cleaning and inspection by one of the following methods:

(a) Without being disassembled;

(b) By disassembling without the use of tools; or

(c) By easy disassembling with the use of handheld tools commonly available to maintenance and cleaning personnel such as screwdrivers, pliers, open-end wrenches, and Allen wrenches.

1502.3 Section 1502.2 does not apply to cooking oil storage tanks, distribution lines for cooling oils, ***beverage*** syrup lines or tubes.

1503 CLEANABILITY – CIP EQUIPMENT

1503.1 ***CIP equipment*** shall meet the characteristics specified in section 1502 and shall be designed and constructed so that:

(a) Cleaning and sanitizing solutions circulate throughout a fixed system and contact all interior ***food-contact surfaces***; and

(b) The system is self-draining or capable of being completely drained of cleaning and sanitizing solutions.

1503.2 ***CIP equipment*** that is not designed to be disassembled for cleaning shall be designed with inspection access points to ensure that all interior ***food-contact surfaces*** throughout the fixed system are being effectively cleaned.

1504 "V" THREADS, USE LIMITATION

1504.1 "V" type threads may not be used on ***food-contact surfaces***. This section does not apply to hot oil cooking or filtering ***equipment***.

1505 CLEANABILITY – HOT OIL FILTERING EQUIPMENT

1505.1 Hot oil filtering ***equipment*** shall meet the characteristics specified in section 1502 or section 1503 and shall be readily accessible for filter replacement and cleaning of the filter.

1506 CLEANABILITY – CAN OPENERS

1506.1 Cutting or piercing parts of can openers shall be readily removable for cleaning and for replacement.

1507 CLEANABILITY – NONFOOD-CONTACT SURFACES

1507.1 Nonfood-contact surfaces shall be free of unnecessary ledges, projections, and crevices, and designed and constructed to allow easy cleaning and to facilitate maintenance.

1508 CLEANABILITY – KICK PLATES, REMOVABLE

1508.1 Kick plates shall be designed so that the areas behind them are accessible for inspection and cleaning by being removable by one of the methods specified in section 1502.2 or capable of being rotated open; and removable or capable of being rotated open without unlocking ***equipment*** doors.

1509 CLEANABILITY – VENTILATION HOOD SYSTEMS, FILTERS

1509.1 Filters or other grease extracting ***equipment*** shall be designed to be readily removable for cleaning and replacement if not designed to be cleaned in place.

1510 ACCURACY – TEMPERATURE MEASURING DEVICES, FOOD

1510.1 ***Food*** temperature measuring devices that are scaled only in Celsius or dually scaled in Celsius and Fahrenheit shall be accurate to $\pm 1^{o}$ C in the intended range of use.

1510.2 ***Food*** temperature measuring devices that are scaled only in Fahrenheit shall be accurate to $\pm 2^{o}$ F in the intended range of use.

1511 ACCURACY – TEMPERATURE MEASURING DEVICES, AMBIENT AIR AND WATER

1511.1 Ambient air and water temperature measuring devices that are scaled in Celsius or dually scaled in Celsius and Fahrenheit shall be designed to be easily readable and accurate to ±1.5° C in the intended range of use.

1511.2 Ambient air and water temperature measuring devices that are scaled only in Fahrenheit shall be accurate to ±3° F in the intended range of use.

1512 ACCURACY – PRESSURE MEASURING DEVICES, MECHANICAL WAREWASHING EQUIPMENT

1512.1 Pressure measuring devices that display the pressures in the water supply line for the fresh hot water sanitizing rinse shall have increments of 7 kilopascals (1 pounds per square inch) or smaller and shall be accurate to ± 14 kilopascals (± 2 pounds per square inch) in the 100-170 kilopascals (15-25 pounds per square inch) range.

1513 FUNCTIONALITY – VENTILATION HOOD SYSTEMS, DRIP PREVENTION

1513.1 Exhaust ventilation hood systems in ***food*** preparation and warewashing areas including components such as hoods, fans, guards, and ducting shall be designed to prevent grease or condensation from draining or dripping onto ***food***, ***equipment***, ***utensils, linens***, and ***single-service*** and ***single-use articles***.

1514 FUNCTIONALITY – EQUIPMENT OPENINGS, CLOSURES AND DEFLECTORS

1514.1 A cover or lid for ***equipment*** shall overlap the opening and be sloped to drain.

1514.2 An opening located within the top of a unit of ***equipment*** that is designed for use with a cover or lid shall be flanged upward at least five millimeters (5 mm) (two-tenths of an inch (2/10 in.)).

1514.3 Fixed piping, temperature measuring devices, rotary shafts, and other parts extending into ***equipment*** shall be provided with a watertight joint at the point where the item enters the ***equipment***, except as specified in section 1514.4.

1514.4 If a watertight joint is not provided under section 1514.3:

(a) The piping, temperature measuring devices, rotary shafts, and other parts extending through the openings shall be equipped with an apron designed to deflect condensation, drips, and dust from openings into the ***food***; and

(b) The opening shall be flanged as specified in section 1514.2.

1515 FUNCTIONALITY – DISPENSING EQUIPMENT, PROTECTION OF EQUIPMENT AND FOOD

1515.1 In ***equipment*** that dispenses or vends liquid ***food*** or ice in unpackaged form, the delivery tube, chute, orifice, and splash surfaces directly above the container receiving the ***food*** shall be designed in a manner, such as with barriers, baffles, or drip aprons, so that drips from condensation and splash are diverted from the opening of the container receiving the ***food***.

1515.2 In ***equipment*** that dispenses or vends liquid ***food*** or ice in unpackaged form, the delivery tube, chute, or orifice shall be protected from manual contact, such as by being recessed.

1515.3 In ***equipment*** that dispenses or vends liquid ***food*** or ice in unpackaged form, the delivery tube or chute and orifice of the ***equipment*** used to vend liquid ***food*** or ice in unpackaged form to self-service ***consumers*** shall be designed so that the delivery tube or chute and orifice are protected from dust, insects, rodents, and other contamination by a self-closing door if the ***equipment*** is:

(a) Located in an outside area that does not otherwise afford the protection of an enclosure against the rain, windblown debris, insects, rodents, and other contaminants that are present in the environment; or

(b) Available for self-service during hours when it is not under the full-time supervision of a ***food employee***.

1515.4 In ***equipment*** that dispenses or vends liquid ***food*** or ice in unpackaged form the dispensing ***equipment*** actuating lever or mechanism and filling device of ***consumer*** self-service ***beverage*** dispensing ***equipment*** shall be designed to prevent contact with the lip-contact surface of glasses or cups that are refilled.

1516 FUNCTIONALITY – VENDING MACHINE, VENDING STAGE CLOSURE

1516.1 The dispensing compartment of a ***vending machine***, including a machine that is designed to vend prepackaged ***snack food*** that is not potentially hazardous such as

chips, party mixes, and pretzels, shall be equipped with a self-closing door or cover if the machine is:

(a) Located in an outside area that does not otherwise afford the protection of an enclosure against the rain, windblown debris, insects, rodents, and other contaminants that are present in the environment; or

(b) Available for self-service during hours when it is not under the full-time supervision of a ***food employee***.

1517 FUNCTIONALITY – BEARINGS AND GEAR BOXES, LEAKPROOF

1517.1 ***Equipment*** containing bearings and gears that require lubricants shall be designed and constructed so that the lubricant cannot leak, drip, or be forced into ***food*** or onto ***food-contact surfaces***.

1518 FUNCTIONALITY – BEVERAGE TUBING, SEPARATION

1518.1 ***Beverage*** tubing and cold-plate ***beverage*** cooling devices shall not be installed in contact with stored ice. This section does not apply to cold plates that are constructed integrally with an ice storage bin.

1519 FUNCTIONALITY – ICE UNITS, SEPARATION OF DRAINS

1519.1 Liquid waste drain lines shall not pass through an ice machine or ice storage bin.

1520 FUNCTIONALITY – CONDENSER UNIT, SEPARATION

1520.1 If a condenser unit is an integral component of ***equipment***, the condenser unit shall be separated from the ***food*** and ***food*** storage space by a dustproof barrier.

1521 FUNCTIONALITY – CAN OPENERS ON VENDING MACHINES

1521.1 Cutting or piercing parts of can openers on vending machines shall be protected from manual contact, dust, insects, rodents, and other contamination.

1522 FUNCTIONALITY – MOLLUSCAN SHELLFISH TANKS

1522.1 Molluscan shellfish life support system display tanks shall not be used to display shellfish that are offered for human consumption and shall be conspicuously marked

so that it is obvious to the ***consumer*** that the shellfish are for display only, except as specified in section 1522.2.

1522.2 Molluscan shellfish life support system display tanks that are used to store and display shellfish that are offered for human consumption shall be operated and maintained in accordance with a variance granted by the ***Department*** as specified in section 4102 and a ***HACCP Plan*** that:

(a) Is submitted by the licensee and ***approved*** as specified in sections 4103 and 4104; and

(b) Ensures that:

(1) Water used with fish other than molluscan shellfish does not flow into the molluscan tank;

(2) The safety and quality of the shellfish as they were received are not compromised by the use of the tank; and

(3) The identity of the source of the ***shellstock*** is retained as specified in section 717.

1523 FUNCTIONALITY – VENDING MACHINES, AUTOMATIC SHUTOFF *

1523.1 A machine vending ***potentially hazardous food*** shall have an automatic control that prevents the machine from vending ***food*** if there is a power failure, mechanical failure, or other condition that results in an internal machine temperature that can not maintain ***food*** temperatures as specified in Subtitle C: Food until the machine is serviced and restocked with ***food*** that has been maintained at temperatures specified in Subtitle C: Food.

1523.2 When the automatic shutoff within a machine vending ***potentially hazardous food*** is activated:

(a) In a refrigerated vending machine, the ambient temperature may not exceed 5°C (41°F) or 7°C (45°F) as specified in section 1005.1(c) for more than thirty (30) minutes immediately after the machine is filled, serviced, or restocked; or

(b) In a hot holding vending machine, the ambient temperature may not be less than 60°C (140°F) for more than one hundred and twenty (120) minutes immediately after the machine is filled, serviced, or restocked.

1524 FUNCTIONALITY – TEMPERATURE MEASURING DEVICES

1524.1 In a mechanically refrigerated or hot ***food*** storage unit, the sensor of a temperature measuring device shall be located to measure the air temperature in the warmest part of a mechanically refrigerated unit and in the coolest part of a hot ***food*** storage unit.

1524.2 Cold or hot holding ***equipment*** used for ***potentially hazardous food*** shall be designed to include and shall be equipped with at least one integral or permanently affixed temperature measuring device that is located to allow easy viewing of the device's temperature display, except as specified in section 1524.3.

1524.3 Section 1524.2 does not apply to ***equipment*** for which the placement of a ***temperature measuring device*** is not a practical means for measuring the ambient air surrounding the ***food*** because of the design, type, and use of the ***equipment***, such as ***calrod units***, heat lamps, cold plates, ***bainmaries***, steam tables, insulated ***food*** transport containers, and salad bars.

1524.4 ***Temperature measuring devices*** shall be designed to be easily readable.

1524.5 ***Food temperature measuring devices*** and water ***temperature measuring devices*** on ***warewashing*** machines shall have a numerical scale, printed record, or digital readout in increments no greater than 1°C or 2 °F in the intended range of use.

1525 FUNCTIONALITY – WAREWASHING MACHINE, DATA PLATE OPERATING SPECIFICATIONS

1525.1 A ***warewashing*** machine shall be provided with an easily accessible and readable data plate affixed to the machine by the manufacturer that indicates the machine's design and operating specifications including the:

(a) Temperatures required for washing, rinsing, and sanitizing;

(b) Pressure required for the fresh water sanitizing rinse unless the machine is designed to use only a pumped sanitizing rinse; and

(c) Conveyor speed for conveyor machines or cycle time for stationary rack machines.

1526 FUNCTIONALITY – WAREWASHING MACHINES, INTERNAL BAFFLES

1526.1 Warewashing machine wash and rinse tanks shall be equipped with baffles, curtains, or other means to minimize internal cross contamination of the solutions in wash and rinse tanks.

1527 FUNCTIONALITY – WAREWASHING MACHINES, TEMPERATURE MEASURING DEVICES

1527.1 A warewashing machine shall be equipped with a temperature-measuring device that indicates the temperature of the water:

(a) In each wash and rinse tank; and

(b) As the water enters the hot water sanitizing final rinse manifold or in the chemical sanitizing solution tank.

1528 FUNCTIONALITY – MANUAL WAREWASHING EQUIPMENT, HEATERS AND BASKETS

1528.1 If hot water is used for sanitization in manual warewashing operations, the sanitizing compartment of the sink shall be:

(a) Designed with an integral heating device that is capable of maintaining water at a temperature not less than 77°C (171° F); and

(b) Provided with a rack or basket to allow complete immersion of ***equipment*** and utensils into the hot water.

1529 FUNCTIONALITY – WAREWASHING MACHINES, SANITIZER LEVEL INDICATOR

1529.1 A warewashing machine that uses a chemical for sanitization and that is installed after adoption of this Code shall be equipped with a device that indicates audibly or visually when more chemical sanitizer needs to be added.

1530 FUNCTIONALITY – WAREWASHING MACHINES, FLOW PRESSURE DEVICE

1530.1 Warewashing machines that provide a fresh hot water sanitizing rinse shall be equipped with a pressure gauge or similar device such as a transducer that measures

and displays the water pressure in the supply line immediately before entering the warewashing machine.

1530.2 If the flow pressure-measuring device is upstream of the fresh hot water sanitizing rinse control valve, the device shall be mounted in a 64 millimeter or one-fourth inch (1/4 in.) Iron Pipe Size (IPS) valve.

1530.3 Sections 1530.1 and 1530.2 do not apply to a machine that uses only a pumped or recirculated sanitizing rinse.

1531 FUNCTIONALITY – WAREWASHING SINKS AND DRAINBOARDS, SELF-DRAINING

1531.1 Sinks and drainboards of warewashing sinks and machines shall be self-draining.

1532 FUNCTIONALITY – EQUIPMENT COMPARTMENTS, DRAINAGE

1532.1 ***Equipment*** compartments that are subject to accumulation of moisture due to conditions such as condensation, ***food*** or ***beverage*** drip, or water from melting ice shall be sloped to an outlet that allows complete draining.

1533 FUNCTIONALITY – VENDING MACHINES, LIQUID WASTE PRODUCTS

1533.1 ***Vending machines*** designed to store beverages that are packaged in containers made from paper products shall be equipped with diversion devices and retention pans or drains for container leakage.

1533.2 ***Vending machines*** that dispense liquid ***food*** in bulk shall be:

(a) Provided with an internally mounted waste receptacle for the collection of drip, spillage, overflow, or other internal wastes; and

(b) Equipped with an automatic shutoff device that will place the machine out of operation before the waste receptacle overflows.

1533.3 Shutoff devices specified in section 1533.2(b) shall prevent water or liquid ***food*** from continuously running if there is a failure of a flow control device in the water or liquid ***food*** system or waste accumulation that could lead to overflow of the waste receptacle.

1534 FUNCTIONALITY – CASE LOT HANDLING EQUIPMENT, MOVEABILITY

1534.1 ***Equipment***, such as dollies, pallets, racks, and skids used to store and transport large quantities of packaged ***foods*** received from a supplier in a cased or overwrapped lot, shall be designed to be moved by hand or by conveniently available ***equipment*** such as hand trucks and forklifts.

1535 FUNCTIONALITY – VENDING MACHINE DOORS AND OPENINGS

1535.1 ***Vending machine*** doors and access opening covers to ***food*** and container storage spaces shall be tight-fitting so that the space along the entire interface between the doors or covers and the cabinet of the machine, if the doors or covers are in a closed position, is no greater than one and one-half millimeter (1.5 mm) or one-sixteenth inch (1/16 in.) by:

(a) Being covered with louvers, screens, or materials that provide an equivalent opening of not greater than one and one-half millimeter (1.5 mm) or one-sixteenth inch (1/16 in.). Screening of twelve (12) or more mesh to two and one-half centimeters (2.5 cm) (12 mesh to 1 inch) meets this requirement;

(b) Being effectively gasketed;

(c) Having interface surfaces that are at least thirteen millimeters (13 mm) or one-half inch (1/2 in.) wide; or

(d) Jambs or surfaces used to form an L-shaped entry path to the interface.

1535.2 Vending machine service connection openings through an exterior wall of a machine shall be closed by sealants, clamps, or grommets so that the openings are no larger than one and one-half millimeter (1.5 mm) or one-sixteenth inch (1/16 in).

1536 ACCEPTABILITY – FOOD EQUIPMENT, CERTIFICATION AND CLASSIFICATION

1536.1 ***Food equipment*** that is certified or classified for sanitation by an American National Standards Institute (ANSI)-accredited certification program shall be deemed to comply with Chapters 14 and 15 of this Code.

Chapter 16 NUMBERS AND CAPACITIES

Sections

1600 EQUIPMENT – COOLING, HEATING, AND HOLDING CAPACITIES

1600.1 ***Equipment*** for cooling and heating ***food***, and holding cold and hot ***food***, shall be sufficient in number and capacity to provide ***food*** temperatures as specified in Subtitle C: Food.

1601 EQUIPMENT – MANUAL WAREWASHING, SINK COMPARTMENT REQUIREMENTS

1601.1 A sink with at least three (3) compartments shall be provided for manually washing, rinsing, and sanitizing ***equipment*** and utensils, except as specified in section 1601.3.

1601.2 Sink compartments shall be large enough to accommodate immersion of the largest ***equipment*** and ***utensils***. If ***equipment*** or utensils are too large for the ***warewashing*** sink, a ***warewashing*** machine or alternative ***equipment*** as specified in section 1601.3 shall be used.

1601.3 Alternative manual ***warewashing equipment*** may be used when there are special cleaning needs or constraints and its use is ***approved***. Alternative manual ***warewashing equipment*** may include:

(a) High-pressure detergent sprayers;

(b) Low- or line-pressure spray detergent foamers;

(c) Other task-specific cleaning ***equipment***;

(d) Brushes or other implements;

(e) Two (2)-compartment sinks as specified in sections 1601.4 and 1601.5; or

(f) Receptacles that substitute for the compartments of a multi-compartment sink.

1601.4 Before a two (2)-compartment sink is used:

(a) The licensee shall have its use ***approved***; and

(b) The nature of warewashing shall be limited to batch operations for cleaning kitchenware such as between cutting one type of raw meat and another, or cleanup at the end of a shift, and:

(1) A limited number of items shall be cleaned;

(2) The cleaning and sanitizing solutions shall be made up immediately before use and drained immediately after use; and

(3) A detergent-sanitizer shall be used to sanitize and shall be applied as specified in section 1814; or

(4) A hot water sanitization immersion step shall be used as specified in section 1909.1(c).

1601.5 A two (2)-compartment sink shall not be used for warewashing operations where cleaning and sanitizing solutions are used for a continuous or intermittent flow of kitchenware or tableware in an ongoing warewashing process.

1602 EQUIPMENT – DRAINBOARDS

1602.1 Drainboards, utensil racks, or tables large enough to accommodate all soiled and cleaned items that may accumulate during hours of operation shall be provided for necessary utensil holding before cleaning and after sanitizing.

1603 EQUIPMENT – VENTILATION HOOD SYSTEMS, ADEQUACY

1603.1 Ventilation hood systems and devices shall be sufficient in number and capacity to prevent grease or condensation from collecting on walls and ceilings.

1604 EQUIPMENT – CLOTHES WASHERS AND DRYERS

1604.1 If work clothes or linens are laundered on the premises, a mechanical clothes washer and dryer shall be provided and used, except as specified in section 1604.2.

1604.2 If on-premises laundering is limited to wiping cloths intended to be used moist, or wiping cloths are air-dried as specified in section 2201, a mechanical clothes washer and dryer need not be provided.

1605 UTENSILS – CONSUMER SELF-SERVICE

1605.1 A ***food*** dispensing utensil shall be available for each container displayed at a ***consumer*** self-service unit such as a buffet or salad bar.

1606 FOOD TEMPERATURE MEASURING DEVICES

1606.1 ***Food temperature measuring devices*** shall be provided and readily accessible for use in ensuring attainment and maintenance of ***food*** temperatures as specified in Subtitle C: Food.

1607 TEMPERATURE MEASURING DEVICES – MANUAL WAREWASHING

1607.1 In manual warewashing operations, a temperature measuring device shall be provided and readily accessible for frequently measuring the washing and sanitizing temperatures.

1608 TESTING DEVICES – SANITIZING SOLUTIONS

1608.1 A test kit or other device that accurately measures the concentration in mg/L of sanitizing solutions shall be provided.

Chapter 17 LOCATION AND INSTALLATION

Sections

1700 LOCATION – EQUIPMENT, CLOTHES WASHERS AND DRYERS, AND STORAGE CABINETS, CONTAMINATION PREVENTION

1700.1 Except as specified in section 1700.2, ***equipment***, a cabinet used for the storage of ***food***, or a cabinet that is used to store cleaned and sanitized ***equipment***, ***utensils***, laundered ***linens***, and ***single-service*** and ***single-use articles*** shall not be located:

(a) In locker rooms;

(b) In toilet rooms;

(c) In garbage rooms;

(d) In mechanical rooms;

(e) Under sewer lines that are not shielded to intercept potential drips;

(f) Under leaking water lines including leaking automatic fire sprinkler heads or under lines on which water has condensed;

(g) Under open stairwells; or

(h) Under other sources of contamination.

1700.2 A storage cabinet used for linens or ***single-service*** or ***single-use articles*** may be stored in a locker room.

1700.3 If a mechanical clothes washer or dryer is provided, it shall be located so that the washer or dryer is protected from contamination and only where there is no exposed: ***food***, clean ***equipment***, clean ***utensils***, clean ***linens***, and unwrapped ***single-service*** and ***single-use articles***.

1701 INSTALLATION – FIXED EQUIPMENT, SPACING OR SEALING

1701.1 ***Equipment*** that is fixed because it is not ***easily movable*** shall be installed so that it is:

(a) Spaced to allow access for cleaning along the sides, behind, and above the ***equipment***;

(b) Spaced from adjoining ***equipment***, walls, and ceilings a distance of not more than one millimeter (1 mm) or one thirty-second inch (1/32 in.); or

(c) Sealed to adjoining ***equipment*** or walls, if the ***equipment*** is exposed to spillage or seepage.

1701.2 Table-mounted ***equipment*** that is not ***easily movable*** shall be installed to allow cleaning of the ***equipment*** and areas underneath and around the ***equipment*** by being:

(a) Sealed to the table; or

(b) Elevated on legs as specified in section 1702.4.

1702 INSTALLATION – FIXED EQUIPMENT, ELEVATION OR SEALING

1702.1 Floor-mounted ***equipment*** that is not ***easily movable*** shall be sealed to the floor or elevated on legs that provide at least a fifteen centimeter (15 cm) or six inch (6 in.) clearance between the floor and the ***equipment***, except as specified in sections 1702.2 and 1702.3.

1702.2 If no part of the floor under the floor-mounted ***equipment*** is more than fifteen centimeters (15 cm) or six inches (6 in.) from the point of cleaning access, the clearance space may be only ten centimeters (10 cm) or four inches (4 in.).

1702.3 This section does not apply to display shelving units, display refrigeration units, and display freezer units located in the ***consumer*** shopping areas of a retail ***food*** store, if the floor under the units is maintained clean.

1702.4 Table-mounted ***equipment*** that is not ***easily movable*** shall be elevated on legs that provide at least a ten centimeter (10 cm) or four inch (4 in.) clearance between the table and the ***equipment***, except as specified in section 1702.5.

1702.5 The clearance space between the table and table-mounted ***equipment*** may be:

(a) Seven and one-half centimeters (7.5 cm) or three inches (3 in.) if the horizontal distance of the table top under the ***equipment*** is no more than fifty centimeters (50 cm) or twenty inches (20 in.) from the point of access for cleaning; or

(b) Five centimeters (5 cm) or two inches (2 in.) if the horizontal distance of the table top under the ***equipment*** is no more than seven and one-half centimeters (7.5 cm) or three inches (3 in.) from the point of access for cleaning.

Chapter 18 MAINTENANCE AND OPERATION

Sections

1800 EQUIPMENT – GOOD REPAIR AND PROPER ADJUSTMENT

1800.1 ***Equipment*** shall be maintained in a state of repair and condition that meets the requirements specified in Chapters 14 and 15.

1800.2 ***Equipment*** components such as doors, seals, hinges, fasteners, and kick plates shall be kept intact, tight, and adjusted in accordance with manufacturer's specifications.

1800.3 Cutting or piercing parts of can openers shall be kept sharp to minimize the creation of metal fragments that can contaminate ***food*** when the container is opened.

1801 EQUIPMENT – CUTTING SURFACES

1801.1 Surfaces such as cutting blocks and boards that are subject to scratching and scoring shall be resurfaced if they can no longer be effectively cleaned and sanitized, or discarded if they are not capable of being resurfaced.

1802 EQUIPMENT – MICROWAVE OVENS

1802.1 Microwave ovens shall meet the safety standards specified in 21 CFR 1030.10 − Microwave ovens.

1803 EQUIPMENT – WAREWASHING, CLEANING FREQUENCY

1803.1 A ***warewashing*** machine; the compartments of sinks, basins, or other receptacles used for washing and rinsing ***equipment, utensils***, or raw ***food***s, or laundering wiping cloths; and drainboards or other ***equipment*** used to substitute for drainboards as specified in section 1602 shall be cleaned:

(a) Before use;

(b) Throughout the day at a frequency necessary to prevent recontamination of ***equipment*** and ***utensils*** and to ensure that the ***equipment*** performs its intended function; and

(c) If used, at least every twenty-four (24) hours.

1804 EQUIPMENT – WAREWASHING MACHINES, MANUFACTURERS' OPERATING INSTRUCTIONS

1804.1 A ***warewashing*** machine and its auxiliary components shall be operated in accordance with the machine's data plate and other manufacturer's instructions.

1804.2 A warewashing machine's conveyor speed or automatic cycle times shall be maintained accurately timed in accordance with manufacturer's specifications.

1805 EQUIPMENT – WAREWASHING SINKS, USE LIMITATION

1805.1 A ***warewashing*** sink shall not be used for handwashing.

1805.2 If a ***warewashing*** sink is used to wash wiping cloths, wash produce, or thaw ***food***, the sink shall be cleaned as specified in section 1803 before and after each time it is used to wash wiping cloths or wash produce or thaw ***food***. Sinks used to wash or thaw ***food*** shall be sanitized as specified in Chapter 20 before and after using the sink to wash produce or thaw ***food***.

1806 EQUIPMENT – WAREWASHING, CLEANING AGENTS

1806.1 When used for warewashing, the wash compartment of a sink, mechanical warewasher, or wash receptacle of alternative manual ***warewashing equipment*** as specified in section 1601.3 shall contain a wash solution of soap, detergent, acid cleaner, alkaline cleaner, degreaser, abrasive cleaner, or other cleaning agent according to the cleaning agent manufacturer's label instructions.

1807 EQUIPMENT – WAREWASHING, CLEAN SOLUTIONS

1807.1 The wash, rinse, and sanitize solutions shall be maintained clean.

1808 EQUIPMENT – MANUAL WAREWASHING, WASH SOLUTION TEMPERATURE

1808.1 The temperature of the wash solution in manual ***warewashing equipment*** shall be maintained at not less than 43°C (110°F) or the temperature specified on the cleaning agent manufacturer's label instructions.

1809 EQUIPMENT – MECHANICAL WAREWASHING, WASH SOLUTION TEMPERATURE

1809.1 The temperature of the wash solution in spray type warewashers that use hot water to sanitize shall not be less than:

(a) For a stationary rack, single temperature machine, 74° C (165° F);

(b) For a stationary rack, dual temperature machine, 66° C (150° F);

(c) For a single tank, conveyor, dual temperature machine, 71° C (160° F); or

(d) For a multi-tank, conveyor, multi-temperature machine, 66° C (150° F).

1809.2 The temperature of the wash solution in spray-type warewashers that use chemicals to sanitize shall not be less than 49°C (120 °F).

1810 EQUIPMENT – MANUAL WAREWASHING, HOT WATER SANITIZATION TEMPERATURES*

1810.1 If immersion in hot water is used for sanitizing in a manual operation, the temperature of the water shall be maintained at 77°C (171°F) or above.

1811 EQUIPMENT – MECHANICAL WAREWASHING, HOT WATER SANITIZATION TEMPERATURES

1811.1 Except as specified in section 1811.2, in a mechanical operation, the temperature of the fresh hot water sanitizing rinse as it enters the manifold shall not be more than 90°C (194°F), or less than:

(a) For a stationary rack, single temperature machine, 74° C (165° F); or

(b) For all other machines, 82° C (180° F).

1811.2 The maximum temperature specified in section 1811.1, does not apply to the high pressure and temperature systems with wand-type, hand-held, spraying devices used for the in-place cleaning and sanitizing of ***equipment*** such as meat saws.

1812 EQUIPMENT – MECHANICAL WAREWASHING, SANITIZATION PRESSURE

1812.1 The flow pressure of the fresh hot water sanitizing rinse in a warewashing machine shall not be less than 100 kilopascals (fifteen (15) pounds per square inch) or more than 170 kilopascals (twenty-five (25) pounds per square inch) as measured in the water line immediately downstream or upstream from the fresh hot water sanitizing rinse control valve.

1813 EQUIPMENT – MANUAL AND MECHANICAL WAREWASHING, CHEMICAL SANITIZATION - TEMPERATURE, pH, CONCENTRATION, AND HARDNESS*

1813.1 A chemical sanitizer used in a sanitizing solution for a manual or mechanical operation at exposure times specified in section 2002.2 shall be listed in 21 CFR 178.1010 − Sanitizing solutions, and shall be used in accordance with the EPA-***approved*** manufacturer's label use instructions.

1813.2 A chlorine solution shall have a minimum temperature based on the concentration and pH of the solution as listed in the following chart:

Minimum Concentration	**Minimum Temperature**	
mg/L	pH 10 or less °C (°F)	pH8 or less °C (°F)
25	49 (120)	49 (120)
50	38 (100)	24 (75)
100	13 (55)	13 (55)

1813.3 An iodine solution shall have a:

(a) Minimum temperature of 24° C (75° F);

(b) pH of 5.0 or less or a pH no higher than the level for which the manufacturer specifies the solution is effective; and

(c) Concentration between 12.5 mg/L and 25 mg/L.

1813.4 A quaternary ammonium compound solution shall:

(a) Have a minimum temperature of 24°C (75°F);

(b) Have a concentration as specified in section 3404 and as indicated by the manufacturer's use directions included in the labeling; and

(c) Be used only in water with 500 mg/L hardness or less, or in water having a hardness no greater than specified by the manufacturer's label.

1813.5 If another solution of a chemical specified under sections 1813.2 – 1813.4 is used, the licensee shall demonstrate to the ***Department*** that the solution achieves sanitization and the use of the solution shall be ***approved***.

1813.6 If a chemical sanitizer other than chlorine, iodine, or a quaternary ammonium compound is used, it shall be applied in accordance with the manufacturer's use directions included in the labeling.

1814 EQUIPMENT – MANUAL WAREWASHING, CHEMICAL SANITIZATION USING DETERGENT-SANITIZERS

1814.1 If a detergent-sanitizer is used to sanitize in a cleaning and sanitizing procedure where there is no distinct water rinse between the washing and sanitizing steps, the agent applied in the sanitizing step shall be the same detergent-sanitizer that is used in the washing step.

1815 EQUIPMENT – WAREWASHING, DETERMINING CHEMICAL SANITIZER CONCENTRATION

1815.1 Concentration of the sanitizing solution shall be accurately determined by using a test kit or other device.

1816 UTENSILS AND TEMPERATURE AND PRESSURE MEASURING DEVICES – GOOD REPAIR AND CALIBRATION

1816.1 Utensils shall be maintained in a state of repair or condition that complies with the requirements specified in Chapters 14 and 15 or shall be discarded.

1816.2 ***Food temperature measuring devices*** shall be calibrated in accordance with manufacturer's specifications as necessary to ensure their accuracy.

1816.3 Ambient air temperature, water pressure, and water temperature measuring devices shall be maintained in good repair and be accurate within the intended range of use.

1817 UTENSILS – SINGLE-SERVICE AND SINGLE-USE ARTICLES, REQUIRED USE*

1817.1 A ***food*** establishment without facilities specified in Chapters 19 and 20 for cleaning and sanitizing ***kitchenware*** and ***tableware*** shall provide only ***single-use kitchenware***, ***single-service articles***, and ***single-use articles*** for use by ***food employees*** and ***single-service articles*** for use by ***consumers***.

1818 UTENSILS – SINGLE-SERVICE AND SINGLE-USE ARTICLES, USE LIMITATION

1818.1 ***Single-service*** and ***single-use articles*** shall not be reused.

1818.2 The bulk milk container dispensing tube shall be cut on the diagonal leaving no more than one inch protruding from the chilled dispensing head.

1819 UTENSILS – SHELLS, USE LIMITATION

1819.1 Mollusk and crustacea shells shall not be used more than once as serving containers.

Chapter 19 CLEANING OF EQUIPMENT AND UTENSILS

Sections

1900 OBJECTIVE – CLEANING*

1900.1 ***Equipment food-contact surfaces***, and ***utensils*** shall be clean to sight and touch.

1900.2 The ***food-contact surfaces*** of cooking ***equipment*** and pans shall be kept free of encrusted grease deposits and other soil accumulations.[N]

1900.3 Nonfood-contact surfaces of ***equipment*** shall be kept free of an accumulation of dust, dirt, ***food*** residue, and other debris.[N]

1901 FREQUENCY – EQUIPMENT FOOD-CONTACT SURFACES AND UTENSILS*

1901.1 ***Equipment food-contact surfaces***, and ***utensils*** shall be cleaned:

(a) Before each use with a different type of raw animal ***food*** such as beef, ***fish***, lamb, pork, or ***poultry***, except as specified in section 1901.2;

(b) Each time there is a change from working with raw ***foods*** to working with ***ready-to-eat foods***;

(c) Between uses with raw fruits and vegetables and with ***potentially hazardous food***;

(d) Before using or storing ***food temperature measuring device***; and

(e) At any time during the operation when contamination may have occurred.

1901.2 Section 1901.1(a) does not apply if the ***food-contact surface*** or ***utensil*** is in contact with a succession of different raw animal ***foods*** each requiring a higher cooking temperature as specified in section 900 than the previous ***food***, such as preparing raw ***fish*** followed by cutting raw poultry on the same cutting board.

1901.3 If used with potentially hazardous ***food***, ***equipment, food-contact surfaces***, and ***utensils*** shall be cleaned throughout the day at least every four (4) hours, except as specified in section 1901.4.

1901.4 Surfaces of ***utensils*** and ***equipment*** contacting ***potentially hazardous food*** may be cleaned less frequently than every four (4) hours if:

(a) In storage, containers of potentially hazardous ***food*** and their contents are maintained at temperatures specified in Subtitle C: Food, and the containers are cleaned when they are empty;

(b) ***Utensils*** and ***equipment*** are used to prepare ***food*** in a refrigerated room or area that is maintained at one of the temperatures in the following chart:

(1) The ***utensils*** and ***equipment*** are cleaned at the frequency in the following chart that corresponds to the temperature:

Temperature	Cleaning Frequency
5.0°C (41°F) or less	24 hours
>5.0°C - 7.2°C (>41°F - 45°F)	20 hours
>7.2°C - 10.0°C (>45°F - 50°F)	16 hours
>10.0°C - 12.8°C (>50°F - 55°F)	10 hours

; and

(2) The cleaning frequency based on the ambient temperature of the refrigerated room or area is documented in the ***food*** establishment;

(c) Containers in serving situations such as salad bars, delis, and cafeteria lines hold ***ready-to-eat potentially hazardous food*** that is maintained at the temperatures specified in Subtitle C: Food, are intermittently combined with additional supplies of the same ***food*** that is at the required temperature, and the containers are cleaned at least every twenty-four (24) hours;

(d) Temperature measuring devices are maintained in contact with ***food***, such as when left in a container of deli ***food*** or in a roast, held at temperatures specified in Subtitle C: Food;

(e) ***Equipment*** is used for storage of packaged or unpackaged ***food*** such as a reach-in refrigerator and the ***equipment*** is cleaned at a frequency necessary to preclude accumulation of soil residues;

(f) The cleaning schedule is ***approved*** based on consideration of:

(1) Characteristics of the ***equipment*** and its use;

(2) The type of ***food*** involved;

(3) The amount of ***food*** residue accumulation; and

(4) The temperature at which the ***food*** is maintained during the operation, and the potential for the rapid and progressive multiplication of pathogenic or toxigenic microorganisms that are capable of causing foodborne disease; and

(g) In-use utensils are intermittently stored in a container of water in which the water is maintained at 60°C (140°F) or more and the ***utensils*** and container are cleaned at least every twenty-four (24) hours or at a frequency necessary to preclude accumulation of soil residues.

1901.5 Surfaces of ***utensils*** and ***equipment*** in contact with ***food*** that is not potentially hazardous, except when dry cleaning methods are used as specified in section 1904, shall be cleaned:[N]

(a) At any time when contamination may have occurred;

(b) At least every twenty-four (24) hours for iced tea dispensers and ***consumer*** self-service utensils such as tongs, scoops, or ladles;

(c) Before restocking ***consumer*** self-service ***equipment*** and ***utensils*** such as condiment dispensers and display containers; and

(d) In ***equipment*** such as ice bins and ***beverage*** dispensing nozzles and enclosed components of ***equipment*** such as ice makers, cooking oil storage tanks and distribution lines, beverage and syrup dispensing lines or tubes, coffee bean grinders, and water vending ***equipment***:[N]

(1) At a frequency specified by the manufacturer; or

(2) Absent manufacturer specifications, at a frequency necessary to preclude accumulation of soil or mold.

1902 FREQUENCY – COOKING AND BAKING EQUIPMENT

1902.1 The ***food-contact surfaces*** of cooking and baking ***equipment*** shall be cleaned at least every twenty-four (24) hours. This section does not apply to hot oil cooking and filtering ***equipment*** if it is cleaned as specified in section 1901.4.

1902.2 The cavities and door seals of microwave ovens shall be cleaned at least every twenty-four (24) hours by using the manufacturer's recommended cleaning procedure.

1903 FREQUENCY – NONFOOD-CONTACT SURFACES

1903.1 Nonfood-contact surfaces of ***equipment*** shall be cleaned at a frequency necessary to preclude accumulation of soil residues.

1904 METHODS – DRY CLEANING

1904.1 If used, dry cleaning methods such as brushing, scraping, and vacuuming shall contact only surfaces that are soiled with dry ***food*** residues that are not potentially hazardous.

1904.2 Cleaning ***equipment*** used in dry cleaning ***food-contact surfaces*** shall not be used for any other purpose.

1905 METHODS – PRECLEANING

1905.1 ***Food*** debris on ***equipment*** and ***utensils*** shall be scraped over a waste disposal unit, ***scupper***, or garbage receptacle or shall be removed in a ***warewashing*** machine with a prewash cycle.

1905.2 If necessary for effective cleaning, utensils and ***equipment*** shall be preflushed, presoaked, or scrubbed with abrasives.

1906 METHODS – LOADING OF SOILED ITEMS, WAREWASHING MACHINES

1906.1 Soiled items to be cleaned in a warewashing machine shall be loaded into racks, trays, or baskets or onto conveyors in a position that:

(a) Exposes the items to the unobstructed spray from all cycles; and

(b) Allows the items to drain.

1907 METHODS – WET CLEANING

1907.1 ***Equipment food-contact surfaces*** and ***utensils*** shall be effectively washed to remove or completely loosen soils by using the manual or mechanical means necessary such as the application of: detergents containing wetting agents and emulsifiers; acid, alkaline, or abrasive cleaners; hot water; brushes; scouring pads; high-pressure sprays; or ultrasonic devices.

1907.2 The washing procedures selected shall be based on the type and purpose of the ***equipment*** or ***utensil***, and on the type of soil to be removed.

1908 METHODS – WASHING, PROCEDURES FOR ALTERNATIVE MANUAL WAREWASHING EQUIPMENT

1908.1 If washing in sink compartments or a ***warewashing*** machine is impractical such as when the ***equipment*** is fixed or the ***utensils*** are too large, washing shall be done by using alternative manual ***warewashing equipment*** as specified in section 1601.3, in accordance with the following procedures:

(a) ***Equipment*** shall be disassembled as necessary to allow access of the detergent solution to all parts;

(b) ***Equipment*** components and utensils shall be scraped or rough cleaned to remove ***food*** particle accumulation; and

(c) ***Equipment*** and ***utensils*** shall be washed as specified in section 1907.1.

1909 METHODS – RINSING PROCEDURES

1909.1 Washed ***utensils*** and ***equipment*** shall be rinsed so that abrasives are removed and cleaning chemicals are removed or diluted through the use of water or a detergent-sanitizer solution by using one of the following procedures:

(a) Use of a distinct, separate water rinse after washing and before sanitizing if using:

(1) A three (3)-compartment sink;

(2) Alternative manual ***warewashing equipment*** equivalent to a three (3)-compartment sink as specified in section 1601.3; or

(3) A three (3)-step washing, rinsing, and sanitizing procedure in a ***warewashing*** system for ***CIP equipment***;

(b) Use of a detergent-sanitizer as specified in section 1814 if using:

(1) Alternative ***warewashing equipment*** as specified in section 1601.3 that is ***approved*** for use with a detergent-sanitizer; or

(2) A ***warewashing*** system for ***CIP equipment***;

(c) Use of a nondistinct water rinse that is integrated in the hot water ***sanitization*** immersion step of a two (2)-compartment sink operation;

(d) If using a warewashing machine that does not recycle the sanitizing solution as specified in section 1909.1(e), or alternative manual ***warewashing equipment*** such as sprayers, use of a nondistinct water rinse that is:

(1) Integrated in the application of the sanitizing solution; and

(2) Wasted immediately after each application; or

(e) If using a warewashing machine that recycles the sanitizing solution for use in the next wash cycle, use of a nondistinct water rinse that is integrated in the application of the sanitizing solution.

1910 METHODS – CLEANING FOR REFILLING OF RETURNABLES*

1910.1 Returned empty containers intended for cleaning and refilling with ***food*** shall be cleaned and refilled in a regulated ***food processing plant***, except as specified in sections 1910.2 and 1910.3.

1910.2 A ***food***-specific container for ***beverages*** may be refilled at a ***food establishment*** if:

(a) Only a ***beverage*** that is not a ***potentially hazardous food*** is used as specified in section 815.1;

(b) The design of the container and of the rinsing ***equipment*** and the nature of the ***beverage***, when considered together, allow effective cleaning at home or in the ***food establishment***;

(c) Facilities for rinsing before refilling returned containers with fresh, hot water that is under pressure and not recirculated are provided as part of the dispensing system;

(d) The ***consumer***-owned container returned to the ***food establishment*** for refilling is refilled for sale or service only to the same ***consumer***; and

(e) The container is refilled by:

(1) An ***employee*** of the ***food establishment***; or

(2) The owner of the container if the ***beverage*** system includes a contamination-free transfer process that cannot be bypassed by the container owner.

1910.3 ***Consumer***-owned containers that are not ***food***-specific may be filled at a water ***vending machine*** or system.

Chapter 20 SANITIZATION OF EQUIPMENT AND UTENSILS

Sections

2000 OBJECTIVE – FOOD-CONTACT SURFACES AND UTENSILS

2000.1 ***Equipment***, ***food-contact surfaces***, and ***utensils*** shall be sanitized.

2001 FREQUENCY – BEFORE USE AFTER CLEANING*

2001.1 ***Utensils*** and ***food-contact surfaces*** of ***equipment*** shall be sanitized before use after cleaning.

2002 METHODS – HOT WATER AND CHEMICAL *

2002.1 After being cleaned, ***equipment***, ***food-contact surfaces*** and ***utensils*** shall be sanitized in:

(a) Hot water manual operations by immersion for at least thirty (30) seconds as specified in section 1810; or

(b) Hot water mechanical operations by being cycled through ***equipment*** that is set up as specified in sections 1804, 1811, and 1812 and achieving a utensil surface temperature of 71°C (160°F) as measured by an irreversible registering temperature indicator.

2002.2 After being cleaned, ***equipmen***t, ***food-contact surfaces*** and ***utensils*** shall be sanitized in chemical, manual or mechanical operations, including the application of sanitizing chemicals by immersion, manual swabbing, brushing, or pressure spraying methods, using a solution as specified in section 1813 by providing:

(a) Except as specified in section 2002.2(b), an exposure time of at least ten (10) seconds for a chlorine solution specified in section 1813.2;

(b) An exposure time of at least seven (7) seconds for a chlorine solution of 50 mg/L that has a pH of ten (10) or less and a temperature of at least 38°C (100°F), or a pH of eight (8) or less and a temperature of at least 24°C (75°F);

(c) An exposure time of at least thirty (30) seconds for other chemical sanitizing solutions; or

(d) An exposure time used in relationship with a combination of temperature, concentration, and pH that, when evaluated for efficacy by the manufacturer of the sanitizing compound, yields sanitization.

Chapter 21 LAUNDERING

Sections

2100 OBJECTIVE – CLEAN LINENS

2100.1 Clean ***linens*** shall be free from ***food*** residues and other soiling matter.

2101 FREQUENCY – SPECIFICATIONS

2101.1 ***Linens*** that do not come in direct contact with ***food*** shall be laundered between operations if they become wet, sticky, or visibly soiled.

2101.2 Cloth gloves used as specified in section 813.4 shall be laundered before being used with a different type of raw animal ***food*** such as beef, lamb, pork, and ***fish***.

2101.3 ***Linens*** and napkins that are used as specified in section 811 and cloth napkins shall be laundered between each use.

2101.4 Wet wiping cloths shall be laundered daily.

2101.5 Dry wiping cloths shall be laundered as necessary to prevent contamination of ***food*** and clean serving ***utensils***.

2102 METHODS – STORAGE OF SOILED LINENS

2102.1 Soiled ***linens*** shall be kept in clean, nonabsorbent receptacles or clean, washable laundry bags and stored and transported to prevent contamination of ***food***, clean ***equipment***, clean ***utensils***, and ***single-service*** and ***single-use articles***.

2103 METHODS – MECHANICAL WASHING

2103.1 Linens shall be mechanically washed, except as specified in section 2103.2.

2103.2 In ***food establishments*** in which only wiping cloths are laundered as specified in section 1604.2 the wiping cloths may be laundered in a mechanical washer, sink designated only for laundering wiping cloths, or a ***warewashing*** or ***food*** preparation sink that is cleaned as specified in section 1803.

2104 METHODS – USE OF LAUNDRY FACILITIES

2104.1 Laundry facilities on the ***premises*** of a ***food establishment*** shall be used only for the washing and drying of items used in the operation of the establishment, except as specified in section 2104.2.

2104.2 Separate laundry facilities located on the ***premises*** for the purpose of general laundering such as for institutions providing boarding and lodging may also be used for laundering ***food establishment*** items.

Chapter 22 PROTECTION OF CLEAN ITEMS

Sections

2200 DRYING – EQUIPMENT AND UTENSILS, AIR-DRYING REQUIRED

2200.1 After cleaning and sanitizing, ***equipment*** and ***utensils***:

(a) Shall be air-dried or used after adequate draining as specified in paragraph (a) of 21 CFR 178.1010 − Sanitizing solutions, before contact with ***food***; and

(b) May not be cloth-dried except that utensils that have been air-dried may be polished with cloths that are maintained clean and dry.

2201 DRYING – WIPING CLOTHS, AIR-DRYING LOCATIONS

2201.1 Wiping cloths laundered in a ***food establishment*** that does not have a mechanical clothes dryer as specified in section 1604.2 shall be air-dried in a location and in a manner that prevents contamination of ***food***, ***equipment***, ***utensils***, ***linens***, and ***single-service*** and ***single-use articles*** and the wiping cloths. This section does not apply if wiping cloths are stored after laundering in a sanitizing solution as specified in section 1813.

2202 LUBRICATING AND REASSEMBLING – FOOD-CONTACT SURFACES, AND EQUIPMENT

2202.1 Lubricants shall be applied to ***food-contact surfaces*** that require lubrication in a manner that does not contaminate ***food-contact surfaces***.

2202.2 ***Equipment*** shall be reassembled so that ***food-contact surfaces*** are not contaminated.

2203 STORING – EQUIPMENT, UTENSILS, LINENS, AND SINGLE-SERVICE AND SINGLE-USE ARTICLES

2203.1 Cleaned ***equipment*** and ***utensils***, laundered ***linens***, and ***single-service*** and ***single-use articles***, except as specified in section 2203.4, shall be stored:

(a) In a clean, dry location;

(b) Where they are not exposed to splash, dust, or other contamination; and

(c) At least fifteen centimeters (15 cm) or six inches (6 in.) above the floor.

2203.2 Clean ***equipment*** and ***utensils*** shall be stored as specified in section 2203.1 and shall be stored:

(a) In a self-draining position that allows air drying; and

(b) Covered or inverted.

2203.3 ***Single-service*** and ***single-use articles*** shall be stored as specified in section 2203.1 and shall be kept in the original protective package or stored by using other means that afford protection from contamination until used.

2203.4 Items that are kept in closed packages may be stored less than fifteen centimeters (15 cm) or six inches (6 in.) above the floor on dollies, pallets, racks, and skids that are designed as provided in section 1534.

2204 STORING – PROHIBITIONS

2204.1 Cleaned and sanitized ***equipment***, ***utensils***, laundered ***linens***, and ***single-service*** and ***single-use articles***, except as specified in section 2204.2, shall not be stored:

(a) In locker rooms;

(b) In toilet rooms;

(c) In garbage rooms;

(d) In mechanical rooms;

(e) Under sewer lines that are not shielded to intercept potential drips;

(f) Under leaking water lines including leaking automatic fire sprinkler heads or under lines on which water has condensed;

(g) Under open stairwells; or

(h) Under other sources of contamination.

2204.2 Laundered ***linens*** and ***single-service*** and ***single-use articles*** that are packaged or in a facility such as a cabinet may be stored in a locker room.

2205 HANDLING – KITCHENWARE AND TABLEWARE

2205.1 ***Single-service*** and ***single-use articles*** and cleaned and sanitized ***utensils*** shall be handled, displayed, and dispensed so that contamination of ***food***- and lip-contact surfaces is prevented.

2205.2 Knives, forks, and spoons that are not prewrapped shall be presented so that only the handles are touched by ***employees*** and by ***consumers*** if ***consumer*** self-service is provided.

2205.3 ***Single-service articles*** that are intended for ***food***- or lip-contact shall be furnished for ***consumer*** self-service with the original individual wrapper intact or from an ***approved*** dispenser, except as specified in section 2205.2.

2206 HANDLING – SOILED AND CLEAN TABLEWARE

2206.1 Soiled ***tableware*** shall be removed from ***consumer*** eating and drinking areas and handled so that clean ***tableware*** is not contaminated.

2207 HANDLING – PRESET TABLEWARE

2207.1 If tableware is preset:

(a) It shall be protected from contamination by being wrapped, covered, or inverted;

(b) Exposed, unused settings shall be removed when a ***consumer*** is seated; or

(c) Exposed, unused settings shall be cleaned and sanitized before further use if the settings are not removed when a ***consumer*** is seated.