

- (x) Vending machines, automatic shutoff.
- (1) A machine vending potentially hazardous food (time/temperature control for safety food) shall have an automatic control that prevents the machine from vending food:
 - (A) If there is a power failure, mechanical failure, or other condition that results in an internal machine temperature that cannot maintain food temperatures as specified in subchapter 3; and
 - (B) If a condition specified in paragraph (1)(A) occurs, until the machine is serviced and restocked with food that has been maintained at temperatures specified in subchapter 3;
- (2) When the automatic shutoff within a machine vending potentially hazardous food (time/temperature control for safety food) is activated:
 - (A) In a refrigerated vending machine, the ambient air temperature may not exceed forty-one degrees Fahrenheit for more than thirty minutes immediately after the machine is filled, serviced, or restocked; or
 - (B) In a hot holding vending machine, the ambient air temperature may not be less than one hundred thirty-five degrees Fahrenheit for more than one hundred twenty minutes immediately after the machine is filled, serviced, or restocked.
- (y) Temperature measuring devices.
- (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 or a simulated product temperature in the warmest part of a mechanically refrigerated unit and in the coolest part of a hot food storage unit;
- (2) Except as specified in paragraph (3), cold or hot holding equipment used for potentially hazardous food (time/temperature control for safety 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;

- (3) Paragraph (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;
- (4) Temperature measuring devices shall be designed to be easily readable;
- (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 two degrees Fahrenheit in the intended range of use.

(z) 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 operation specifications including the:

- (1) Temperatures required for washing, rinsing, and sanitizing;
- (2) Pressure required for the fresh water sanitizing rinse unless the machine is designed to use only a pumped sanitizing rinse; and
- (3) Conveyor speed for conveyor machines or cycle time for stationary rack machines.

(aa) 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.

(bb) A warewashing machine shall be equipped with a temperature measuring device that indicates the temperature of the water:

- (1) In each wash and rinse tank; and
- (2) As the water enters the hot water sanitizing final rinse manifold or in the chemical sanitizing solution tank.

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

- (1) Designed with an integral heating device that is capable of maintaining water at a temperature not

- less than one hundred seventy-one degrees Fahrenheit; and
- (2) Provided with a rack or basket to allow complete immersion of equipment and utensils into the hot water.
- (dd) A warewashing machine that is installed shall be equipped to:
 - (1) Automatically dispense detergents and sanitizers; and
 - (2) Incorporate a visual means to verify that detergents and sanitizers are delivered or a visual or audible alarm to signal if the detergents and sanitizers are not delivered to the respective washing and sanitizing cycles.
- (ee) Warewashing machines, flow pressure device.
 - (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; and
 - (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 one-fourth inch Iron Pipe Size (IPS) valve;
 - (3) Paragraphs (1) and (2) do not apply to a machine that uses only a pumped or recirculated sanitizing rinse.
- (ff) Sinks and drainboards of warewashing sinks and machines shall be self-draining.
- (gg) 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.
- (hh) Vending machines, liquid waste products.
 - (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;
 - (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;
- (3) Shutoff devices specified in paragraph (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.
- (ii) Vending machine, doors and openings.
 - (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-sixteenth inch by:
 - (A) Being covered with louvers, screens, or materials that provide an equivalent opening of not greater than one-sixteenth inch. Screening of sixteen mesh to one inch meets this requirement;
 - (B) Being effectively gasketed;
 - (C) Having interface surfaces that are at least one-half inch wide; or
 - (D) Jambs or surfaces used to form an L-shaped entry path to the interface;
 - (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 1.5 millimeters or one-sixteenth inch.
- (jj) Food equipment that is certified or classified for sanitation by an American National Standards Institute (ANSI)-accredited certification program is deemed to comply with sections 11-50-45 and 11-50-46. [Eff 2/24/2014; am and comp SEP 01 2017] (Auth: HRS §321-11) (Imp: HRS §321-11)

S11-50-47 Numbers and capacities. (a) 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 subchapter 3.

(b) Manual warewashing, sink compartment requirements.

- (1) Except as specified in paragraph (3), a sink with at least three compartments shall be provided for manually washing, rinsing, and sanitizing equipment and utensils;
- (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 paragraph (3) shall be used;
- (3) Alternative manual warewashing equipment may be used when there are special cleaning needs or constraints and its use is approved by the director. 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) One or two-compartment sinks if only a limited number of utensils need to be washed; or
 - (F) Receptacles that substitute for the compartments of a multi-compartment sink.

(c) 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.

(d) If required by law, ventilation hood systems and devices shall be sufficient in number and capacity to prevent grease or condensation from collecting on walls and ceilings.

(e) Clothes washers and dryers.

- (1) Except as specified in paragraph (2), if work clothes or linens are laundered on the premises, a mechanical clothes washer and dryer shall be provided and used;
- (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

11-50-53(b), a mechanical clothes washer and dryer need not be provided.

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

(g) Food temperature measuring devices.

(1) Food temperature measuring devices shall be provided and readily accessible for use in ensuring attainment and maintenance of food temperatures as specified in subchapter 3;

(2) A temperature measuring device with a suitable small diameter probe that is designed to measure the temperature of thin masses shall be provided and readily accessible to accurately measure the temperature in thin foods such as meat patties and fish filets.

(h) In manual warewashing operations, a temperature measuring device shall be provided and readily accessible for frequently measuring the washing and sanitizing temperatures. A test kit or other device that accurately measures the concentration in parts per million of sanitizing solutions shall be provided.

(i) In hot water mechanical warewashing operations, an irreversible registering temperature indicator shall be provided and readily accessible for measuring the utensil surface temperature. [Eff 2/24/2014; am and comp SEP 01 2017]
] (Auth: HRS §321-11) (Imp: HRS §321-11)

S11-50-48 Location and installation. (a) Equipment, clothes washers and dryers, and storage cabinets, contamination prevention.

(1) Except as specified in paragraph (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 may 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;
- (2) A storage cabinet used for linens or single-service or single-use articles may be stored in a locker room;
- (3) If a mechanical clothes washer or dryer is provided, the washer or dryer shall be located so that it is protected from contamination and only where there is no exposed food; clean equipment, utensils, and linens; and unwrapped single-service and single-use articles.
- (b) Fixed equipment, spacing or sealing.
- (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 or one thirty-second inch; or
 - (C) Sealed to adjoining equipment or walls, if the equipment is exposed to spillage or seepage;
- (2) Counter-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; or
 - (B) Elevated on legs as specified in subsection (c) (4).
- (c) Fixed equipment, elevation or sealing.
- (1) Except as specified in paragraphs (2) and (3), floor-mounted equipment that is not easily movable shall be sealed to the floor or elevated on legs that provide at least a six inch clearance between the floor and the equipment;
- (2) If no part of the floor under the floor-mounted equipment is more than six inches from the point of cleaning access, the clearance space may be only four inches;
- (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;
- (4) Except as specified in paragraph (5), counter-mounted equipment that is not easily movable shall be elevated on legs that provide at least a four inch clearance between the table and the equipment;
 - (5) The clearance space between the table and counter-mounted equipment may be:
 - (A) Three inches if the horizontal distance of the table top under the equipment is no more than twenty inches from the point of access for cleaning; or
 - (B) Two inches if the horizontal distance of the table top under the equipment is no more than three inches from the point of access for cleaning. [Eff 2/24/2014; comp SEP 01 2017] (Auth: HRS §321-11) (Imp: HRS §321-11)

§11-50-49 Maintenance and operation. (a) Good repair and proper adjustment.

- (1) Equipment shall be maintained in a state of repair and condition that meets the requirements specified in sections 11-50-45 and 11-50-46;
 - (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;
 - (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.
- (b) 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.
- (c) A warewashing machine; the compartments of sinks, basins, or other receptacles used for washing and rinsing equipment, utensils, or raw foods, or laundering wiping cloths; and drainboards or other equipment used to substitute for drainboards as specified in section 11-50-47(c) shall be cleaned:
- (1) Before use;

- (2) 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
- (3) If used, at least every twenty-four hours.
- (d) Warewashing machines, manufacturers' operating instructions.
 - (1) A warewashing machine and its auxiliary components shall be operated in accordance with the machine's data plate and other manufacturer's instructions;
 - (2) A warewashing machine's conveyor speed or automatic cycle times shall be maintained accurately timed in accordance with manufacturer's specifications.
- (e) Warewashing sinks, use limitation.
 - (1) A warewashing sink may not be used for handwashing as specified in section 11-50-22(d);
 - (2) If a warewashing sink is used to wash wiping cloths, wash produce, or thaw food, the sink shall be cleaned as specified in subsection (c) 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 section 11-50-51 before and after using the sink to wash produce or thaw food.
- (f) When used for warewashing, the wash compartment of a sink, mechanical warewasher, or wash receptacle of alternative manual warewashing equipment as specified in section 11-50-47(b)(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.
- (g) The wash, rinse, and sanitize solutions shall be maintained clean.
- (h) The temperature of the wash solution in manual warewashing equipment shall be maintained at not less than one hundred ten degrees Fahrenheit or the temperature specified on the cleaning agent manufacturer's label instructions.
- (i) Mechanical warewashing equipment, wash solution temperature.
 - (1) The temperature of the wash solution in spray type warewashers that use hot water to sanitize may not be less than:

- (A) For a stationary rack, single temperature machine, one hundred sixty-five degrees Fahrenheit;
 - (B) For a stationary rack, dual temperature machine, one hundred fifty degrees Fahrenheit;
 - (C) For a single tank, conveyor, dual temperature machine, one hundred sixty degrees Fahrenheit; or
 - (D) For a multitank, conveyor, multitemperature machine, one hundred fifty degrees Fahrenheit;
- (2) The temperature of the wash solution in spray-type warewashers that use chemicals to sanitize may not be less than one hundred twenty degrees Fahrenheit.
- (j) If immersion in hot water is used for sanitizing in a manual operation, the temperature of the water shall be maintained at one hundred seventy-one degrees Fahrenheit or above.
- (k) Mechanical warewashing equipment, hot water sanitization temperatures.
- (1) Except as specified in paragraph (2), in a mechanical operation, the temperature of the fresh hot water sanitizing rinse as it enters the manifold may not be more than one hundred ninety-four degrees Fahrenheit, or less than:
- (A) For a stationary rack, single temperature machine, one hundred sixty-five degrees Fahrenheit; or
 - (B) For all other machines, one hundred eighty degrees Fahrenheit;
- (2) The maximum temperature specified in paragraph (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.
- (1) The flow pressure of the fresh hot water sanitizing rinse in a warewashing machine, as measured in the water line immediately downstream or upstream from the fresh hot water sanitizing rinse control valve, shall be within the range specified on the machine manufacturer's data plate and may not be less than five pounds per square inch or more than thirty pounds per square inch.
- (m) A chemical sanitizer used in a sanitizing solution for a manual or mechanical operation at contact

times specified in section 11-50-51(c)(3) shall meet the criteria approved by the department and shall be used in accordance with the EPA registered label use instructions, and shall be used as follows:

- (1) A chlorine solution shall have a minimum temperature based on the concentration and pH of the solution as listed in Table 49-1;

Table 49-1

Concentration Range mg/L	Minimum Temperature	
	pH 10 or less °F	pH 8 or less °F
25 to 49	120	120
50 to 99	100	75
100	55	55

- (2) An iodine solution shall have a:
 - (A) Minimum temperature of sixty-eight degrees Fahrenheit;
 - (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 milligram per liter and twenty-five milligram per liter;
- (3) A quaternary ammonium compound solution shall:
 - (A) Have a minimum temperature of seventy-five degrees Fahrenheit;
 - (B) Have a concentration as indicated by the manufacturer's use directions included in the labeling; and
 - (C) Be used only in water with five hundred milligram per liter hardness or less or in water having a hardness no greater than specified by the EPA-registered label use instructions;
- (4) If another solution of a chemical specified in paragraphs (1) to (3) is used, the owner or operator shall demonstrate to the director that the solution achieves sanitization and the use of the solution shall be approved; or
- (5) If a chemical sanitizer other than chlorine, iodine, or a quaternary ammonium compound is used, it shall be applied in accordance with the EPA-registered label use instructions.

(n) 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.

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

(p) Good repair and calibration.

(1) Utensils shall be maintained in a state of repair or condition that complies with the requirements specified in sections 11-50-45 and 11-50-46 or shall be discarded;

(2) Food temperature measuring devices shall be calibrated in accordance with manufacturer's specifications as necessary to ensure their accuracy;

(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.

(q) A food establishment without facilities specified in sections 11-50-50 and 11-50-51 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.

(r) Single-service and single-use articles, use limitation.

(1) Single-service and single-use articles may not be reused, except that the director may approve the reuse of single-use articles that meet the materials, durability, strength, and cleanability specifications in sections 11-50-45(a) and 11-50-46(a) and (c) for multiuse utensils;

(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.

(s) Mollusk and crustacea shells may not be used more than once as serving containers. [Eff 2/24/2014; am and comp SEP 01 2017] (Auth: HRS §321-11) (Imp: HRS §321-11)

§11-50-50 Cleaning of equipment and utensils. (a) Equipment, food-contact surfaces, nonfood-contact surfaces, and utensils-objective.

- (1) Equipment food-contact surfaces and utensils shall be clean to sight and touch;
- (2) The food-contact surfaces of cooking equipment and pans shall be kept free of encrusted grease deposits and other soil accumulations;
- (3) Nonfood-contact surfaces of equipment shall be kept free of an accumulation of dust, dirt, food residue, and other debris.

(b) Equipment food-contact surfaces and utensils-frequency.

- (1) Equipment food-contact surfaces and utensils shall be cleaned:
 - (A) Except as specified in paragraph (2), before each use with a different type of raw animal food such as beef, fish, lamb, pork, or poultry;
 - (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 (time/temperature control for safety food);
 - (D) Before using or storing a food temperature measuring device; and
 - (E) At any time during the operation when contamination may have occurred;
- (2) Paragraph (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 11-50-33(a) than the previous food, such as preparing raw fish followed by cutting raw poultry on the same cutting board;
- (3) Except as specified in paragraph (4), if used with potentially hazardous food (time/temperature control for safety food), equipment food-contact surfaces and utensils shall be cleaned throughout the day at least every four hours;
- (4) Surfaces of utensils and equipment contacting potentially hazardous food (time/temperature control for safety food) may be cleaned less frequently than every four hours if:

- (A) In storage, containers of potentially hazardous food (time/temperature control for safety food) and their contents are maintained at temperatures specified in subchapter 3 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 Table 50-1 and:
 - (i) The utensils and equipment are cleaned at the frequency in the following chart that corresponds to the temperature; and

Table 50-1

Temperature	Cleaning Frequency
41°F or less	24 hours
>41°F to 45°F	20 hours
>45°F to 50°F	16 hours
>50°F to 55°F	10 hours

- (ii) 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 (time/temperature control for safety food) that is maintained at the temperatures specified in subchapter 3, 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 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 subchapter 3;
- (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:
 - (i) Characteristics of the equipment and its use;
 - (ii) The type of food involved;
 - (iii) The amount of food residue accumulation; and
 - (iv) 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; or
- (G) In-use utensils are intermittently stored in a container of water in which the water is maintained at one hundred thirty-five degrees Fahrenheit or more and the utensils and container are cleaned at least every twenty-four hours or at a frequency necessary to preclude accumulation of soil residues;
- (5) Except when dry cleaning methods are used as specified in subsection (e), surfaces of utensils and equipment contacting food that is not potentially hazardous (time/temperature control for safety food) shall be cleaned:
 - (A) At any time when contamination may have occurred;
 - (B) At least every twenty-four 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:
 - (i) At a frequency specified by the manufacturer; or