

EQUIPMENT GUIDE

1999 FOOD CODE

CLEANING & SANITIZING FREQUENCY

Equipment Food-contact Surfaces & Utensils

- Each time there is a change from working with raw foods to working with ready-to-eat (RTE) foods .
- Between uses with raw fruits & vegetables and with potentially hazardous food (PHF).
- Before using or storing food temperature measuring devices (TMDs).
- Any time when contamination may have occurred
- Before each use with different type of raw animal food, *except in contact with a succession of different raw animal foods each requiring a higher cooking temperature as specified under 3-401.11 than the previous food, such as raw fish followed by cutting/preparation of raw poultry.*

| Preparation Room Temperature | Cleaning Frequency | Refrigerated room temperatures and cleaning frequency to be documented. |
|------------------------------|--------------------|---|
| 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 | |
| > 55°F unrefrigerated rooms | 4 hours | |

Potentially Hazardous Foods, Food Contact Surfaces

- At least every 4 hours. *Exceptions:*
- Clean when emptied for in-storage containers of PHF maintained at Chapter 3 temperatures/date markings.
- At least every 24 hours for containers in serving situations such as salad bars.
- In-use utensils intermittently stored in a container of hot water at ≥ 140°F to be cleaned every 24 hours or more frequently to preclude accumulation of soil residues.

Non-Potentially Hazardous Foods, Food Contact Surfaces

- At any time when contamination may have occurred.
- At least every 24 hours for iced tea dispensers and consumer self-service utensils.
- Before restocking consumer self-service equipment & utensils such as condiment dispensers.
- In enclosed components of equipment such as ice bins, ice makers, beverage nozzles & syrup dispensing lines/tubes, cooking oil storage tanks & distribution lines, coffee bean grinders, and water vending equipment, as specified by the manufacturer or as necessary to preclude accumulation of soil or mold.

SANITIZATION: CONCENTRATION, pH, TEMPERATURE, HARDNESS & CONTACT TIME

| Minimum Concentrations ppm or mg/L | pH ≤ 10.0 & Minimum Temperature | pH ≤ 8.0 & Minimum Temperature | Contact Time |
|---|--|--------------------------------|--------------|
| Chlorine 25 | 120°F (49°C) | 120°F (49°C) | ≥ 10 seconds |
| Chlorine 50 | 100°F (38°C) | 75°F (24°C) | ≥ 7 seconds |
| Chlorine 100 | 55°F (13°C) | 55°F (13°C) | ≥ 10 seconds |
| Iodine ≥ 12.5 to 25 | pH ≤ 5.0 or per label; ≥ 75°F (24°C) | | ≥ 30 seconds |
| Quaternary Ammonium, per label | water hardness ≤ 500 ppm or mg/L or per label; ≥ 75°F (24°C) | | |
| Hot Water Sanitize, 3 compartment sink w/ integral heating device | ≥ 171°F (77°C) immersed in rack or basket | | |

NOTE: All chemical sanitizers shall be listed in 21 CFR 178.1010 Sanitizing Solutions and used in accordance with the EPA-approved manufacturer's label use instructions.

| WAREWASHING: MECHANICAL & MANUAL | | Minimum Wash Temperature | Minimum Sanitizing Temperature |
|---|---|--------------------------|---|
| SPRAY TYPE WAREWASHERS: Single Tank, Hot Water Sanitize | Stationary rack, single temperature | 165°F (74°C) | 165°F (74°C) |
| | Stationary rack, dual temperature | 150°F (66°C) | 180°F (82°C) Manifold 160°F (71°C) Utensil surface |
| | Conveyor, dual temperature | 160°F (71°C) | |
| Multitank, Hot Water Sanitize | Conveyor, multi temperature | 150°F (66°C) | |
| Chemical Sanitize | Any warewashing machine | 120°F (49°C) | sanitization levels as stated in the above table or per labeled manufacturer's instructions on the container. |
| 3 Compartment Sink | Cleaning agent labeling may permit lower washing temperatures | 110°F (43°C) | |

MECHANICAL WAREWASHING:

1. As appropriate, washing, rinsing & sanitizing temperatures; fresh water sanitizing rinse pressure; conveyor speed or cycle time shall be in accordance with dish machine "data plate" and manufacturer's instructions.
2. Fresh hot water sanitization: the flow pressure immediately downstream or upstream of the sanitization rinse control valve shall be 15 psi to 25 psi (100 to 170 kilopascals), and any pressure measuring devices shall be scaled at increments of at least 1 psi or 7 kilopascals, and accurate to ± 2 psi or ±14 kilopascals within the working pressure range. Hot water entering the manifold for sanitizing may not be more than 194°F (90°C) {*except for hand-held spraying devices for in-place cleaning & sanitizing*}.
3. Chemical sanitization: units installed after the adoption of this code shall be equipped with an audible or visual "low level" sanitizer indicator to add more sanitizer.

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FOOD-CONTACT SURFACE LIMITATIONS:

GALVANIZED METAL: May not be used in contact with acidic food.

CAST IRON: *May be used as a cooking surface or serving utensils only as part of an uninterrupted process from cooking through service.*

COPPER & COPPER ALLOYS (BRASS): May not be used for foods with a pH < 6.0 such as vinegar, fruit juice, wine, etc., {*except for the prefermentation & fermentation steps of a beer brewing operation*} or for a water supply line between a soda carbonator & backflow preventer.

WOOD: Wood & wood wicker may not be used as a food-contact surface.

Except:

1. *Hard maple or equivalently hard, close-grained wood may be used for cutting boards & blocks, bakers' tables, and utensils such as rolling pins, doughnut dowels, salad bowls & chopsticks;*
2. *Wooden paddles for pressure scraping kettles in confectionery operations with products reaching at least 230°F (110°C).*
3. *Whole uncut raw fruit & vegetables and unshelled nuts may be kept in the original wooden shipping container.*
4. *Whole, uncut, raw foods requiring the removal of rinds, peels, husks, or shells may be kept in untreated wood containers or treated wood as specified in 21 CFR 178.3800 Preservatives for Wood.*

NONSTICK COATINGS: Cooking surfaces that have a perfluorocarbon resin coating shall be used with nonscoring or nonscratching cleaning aids.

SPONGES: May not be used in contact with cleaned & sanitized or in-use food contact surfaces.

LEAD LIMITATIONS:

| | | |
|--|--|-------------------------------|
| Ceramic, China & Crystal | Hot Beverage or Coffee Mugs | Maximum Lead: 0.5 ppm or mg/L |
| | Large Hollowware, bowls ≥1.16 qts or 1.1 L | 1.0 ppm or mg/L |
| | Small Hollowware, bowls <1.16 qts or 1.1 L | 2.0 ppm or mg/L |
| | Flat Utensils, plates & saucers etc. | 3.0 ppm or mg/L |
| Pewter Alloys used as a food contact surface | | .05% |
| Solder & Flux used as a food contact surface | | .2% |

TEMPERATURE MEASURING DEVICES (TMDs):

1. Designed to be easily readable.
2. Food TMD's shall be provided & readily accessible for ensuring attainment & maintenance of food temperatures as specified under Chapter 3.
3. Food TMD's may not have sensors or stems constructed of glass, except stems encased in a shatterproof coating such as candy thermometers may be used.
4. Mechanically refrigerated or hot food storage units: equipped with at least one integral or permanently affixed, easily viewed TMD with sensors shall be located in the warmest part of the refrigeration unit and in the coolest part of a hot storage unit. Except where a TMD is not practical for measuring ambient air surrounding the food, such as heat lamps, cold plates, steam tables, salad bars and insulated food transport containers.
5. Warewashing machine TMD's to indicate water temperature in each wash and rinse tank; and entering the hot water sanitizing final rinse manifold or in the chemical sanitizing solution tank.

| TMD Accuracy | Food | Ambient Air & Water |
|--|-------|---------------------|
| Fahrenheit & Celsius, or Celsius only | ± 1°C | ± 1.5°C |
| Fahrenheit only | ± 2°F | ± 3°F |
| Food or warewashing TMDs shall have a numerical scale, printed record or digital readout; increments are to be no greater than 2°F (1°C) in the intended range of use. | | |