
**Rules of
Department of Health
Division 20—Division of Environmental
Health and Epidemiology
Chapter 1—Food Protection**

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Title 19—DEPARTMENT OF HEALTH

Division 20—Division of Environmental Health and Epidemiology Chapter 1—Food Protection

19 CSR 20-1.010 Sanitation of Food-Service Establishments

PURPOSE: This rule establishes up-to-date sanitation standards for food-service establishments designated in section 196.190, RSMo (1986) using the 1976 recommendations of the federal Food and Drug Administration in its revised food-service ordinance and code.

(1) The following definitions shall apply in the interpretation and the enforcement of these rules:

(A) Adulterated means the condition of food if it bears or contains any poisonous or deleterious substance in a quantity which may render it injurious to health; if it bears or contains any added poisonous or deleterious substance for which no safe tolerance has been established by rules, or in excess of tolerance if one has been established; if it consists in whole or in part of any filthy, putrid or decomposed substance, or if it is otherwise unfit for human consumption; if it has been processed, prepared, packed or held under unsanitary conditions, where it may have become contaminated with filth or where it may have been rendered injurious to health; if it is in whole or in part the product of a diseased animal, or an animal which has died otherwise than by slaughter; or if its container is composed in whole or in part of any poisonous or deleterious substance which may render the contents injurious to health;

(B) Commissary means a catering establishment, restaurant or any other place in which food, containers or supplies are kept, handled, prepared, packaged or stored;

(C) Corrosion-resistant materials means those materials that maintain their original surface characteristics under prolonged influence of the food to be contacted, the normal use of cleaning compounds and bactericidal solutions and other conditions-of-use environment;

(D) Easily cleanable means that surfaces are readily accessible and made of materials and finish and so fabricated that residue may be effectively removed by normal cleaning methods;

(E) Employee means the permit holder, individuals having supervisory or management duties and any other person working in a food-service establishment;

(F) Equipment means stoves, ovens, ranges, hoods, slicers, mixers, meat blocks, tables, counters, refrigerators, sinks, dishwashing machines, steam tables and similar items (other than utensils) used in the operation of a food-service establishment;

(G) Food means any raw, cooked or processed edible substance, ice, beverage or ingredient used or intended for use or for sale in whole or in part for human consumption;

(H) Food-contact surface means any surface of equipment and utensils with which food normally comes in contact and any surface from which food may drain, drip or splash back onto surfaces normally in contact with food;

(I) Food-service establishment means any place where food is prepared and intended for individual-portion service and includes the site at which individual portions are provided. The term includes any place regardless of whether consumption is on or off the premises and regardless of whether there is a charge for the food. The term also includes delicatessen-type operations that prepare sandwiches intended for individual-portion service. The term does not include private homes where food is prepared or served for individual family consumption, retail food stores, the location of food-vending machines and supply vehicles;

(J) Hermetically-sealed container means a container designed and intended to be secure against the entry of microorganisms and to maintain the commercial sterility of its content after processing;

(K) Kitchenware means all multiuse utensils other than tableware;

(L) Law includes federal, state and local statutes, ordinances and regulations;

(M) Mobile food unit means a vehicle-mounted food-service establishment designed to be readily movable;

(N) Packaged means bottled, canned, cartoned or securely wrapped;

(O) Person includes any individual, partnership, corporation, association or other legal entity. Person in charge means the individual present in a food-service establishment who is the apparent supervisor of the food-service establishment at the time of inspection. If no individual is the apparent supervisor, then any employee present is the person in charge;

(P) Potentially hazardous food means any food that consists in whole or in part of milk or milk products, eggs, meat, poultry, fish, shellfish, edible crustacea or other ingredients including synthetic ingredients, in a form capable of supporting rapid and progressive growth of infectious or toxigenic microorganisms. The term does not include foods which have a pH level of four and six-tenths (4.6) or below or a water activity (a_w) value of eighty-five hundredths (0.85) or less;

(Q) Pushcart means a vehicle that is not self-propelled with its use limited to serving foods that are not potentially hazardous or commissary-wrapped food maintained at proper temperatures or to the preparation and serving of frankfurters;

(R) Reconstituted means dehydrated food products recombined with water or other liquids;

(S) Safe materials means articles manufactured from or composed of materials that may not reasonably be expected to result, directly or indirectly, in their becoming a component or otherwise affecting the characteristics of any food. All materials are safe only if they are in compliance with the state Food, Drug and Cosmetic Act in sections 196.010—196.180, RSMo (1986) and the federal Food, Drug and Cosmetic Act and are used in conformity with all applicable regulations;

(T) Sanitization means effective bactericidal treatment by a process that provides enough accumulative heat or concentration of chemicals for sufficient time to reduce the bacterial count, including pathogens, to a safe level on utensils and equipment;

(U) Sealed means free of cracks or other openings that permit the entry or passage of moisture;

(V) Single-service articles shall mean cups, containers, lids, closures, plates, knives, forks, spoons, stirrers, paddles, straws, napkins, wrapping materials, toothpicks and similar articles intended for one (1)-time, one (1)-person use and then discarded;

(W) Tableware means multiuse eating and drinking utensils;

(X) Temporary food-service establishment means a food-service establishment that operates at a fixed location for a period of time of not more than fourteen (14) consecutive days in conjunction with a single event or celebration;

(Y) Utensil means any implement used in the storage, preparation, transportation or service of food; and

(Z) Health authority means the director of the Department of Health or his/her designated representative.

(2) Food shall be in sound condition, free from spoilage, filth or other contamination and shall be safe for human consumption. Food shall be obtained from sources approved or considered satisfactory by the Department of Health. The use of food in hermetically-sealed containers that was not prepared in a food processing establishment is prohibited. Additional special food supply requirements include:

(A) Fluid milk and fluid milk products used or served shall be pasteurized and shall meet the Grade A quality standards as established

by law. Dry milk and dry milk products shall be made from pasteurized milk and milk products;

(B) Fresh and frozen shucked shellfish—oysters, clams or mussels—shall be packed in nonreturnable packages identified with the name and address of the original shell stock processor, shucker-packer or repacker and the interstate certification number issued according to law. Shell stock and shucked shellfish shall be kept in the container in which they are received until they are used. Each container of unshucked shell stock—oysters, clams or mussels—shall be identified by an attached tag that states the name and address of the original shell stock processor, the kind and quality of shell stock and interstate certification number issued by the state or foreign shellfish control agency;

(C) Only clean whole eggs with shell intact and without cracks or checks, or pasteurized liquid, frozen or dry eggs or pasteurized dry egg products shall be used, with this exception—hard-boiled, peeled eggs that are commercially prepared and packaged may be used; and

(D) Food may be examined or sampled by the health authority as often as necessary for enforcement of this rule. The health authority may embargo any food which the health authority believes is in violation of this rule. The health authority shall tag, label or otherwise identify any food subject to the embargo. No food subject to an embargo shall be used, served or moved from the establishment. The health authority shall permit storage of the food under conditions specified in the embargo unless storage is not possible without risk to the public health; in those cases, immediate destruction shall be ordered and accomplished in accordance with embargo provisions as described in section 196.030, RSMo (1986).

(3) Food shall be protected from potential contamination—including dust, insects, rodents, unclean equipment and utensils, unnecessary handling, coughs and sneezes, flooding, drainage and overhead leakage or overhead drippage from condensation—at all times, including while it is being stored, prepared, displayed, served or transported. The temperature of potentially hazardous food shall be forty-five degrees Fahrenheit (45°F) or below or one hundred forty degrees Fahrenheit (140°F) or above at all times, except as provided in subsections (4)(I) and (J), paragraphs (5)(B)1.—3., subsection (5)(H) and section (6) of this rule. In the event of a fire, flood, power outage or other event that might result in the contamination of food or that might prevent potentially hazardous food from being held at required temperatures, the person in charge shall immediately notify the

health authority. Upon receiving notice of this event, the health authority shall take whatever action that it determines is necessary to protect the public health.

(4) Food Shall be Properly Stored to Assure Minimal Contamination From Any Source.

(A) Food, raw or prepared, if removed from the container or package in which it was obtained, shall be stored in a clean, covered container except during necessary periods of preparation or service. Container covers shall be impervious and nonabsorbent with this exception—linens or napkins may be used for lining or covering bread or roll containers.

(B) Solid cuts of meat shall be protected by being covered in storage with this exception—quarters or sides of meat may be hung uncovered on clean sanitized hooks if no food product is stored beneath the meat.

(C) Containers of food shall be stored a minimum of six inches (6") above the floor in a manner that protects the food from splash and other contamination and that permits easy cleaning of the storage area, with these exceptions—metal pressurized beverage containers and cased food packaged in cans, glass or other waterproof containers need not be elevated when the food container is not exposed to floor moisture; and containers may be stored on dollies, racks or pallets if the equipment is easily movable.

(D) Food and containers of food shall not be stored under exposed or unprotected sewage lines or water lines except automatic fire protection sprinkler heads that may be required by law. The storage of food in toilet rooms or vestibules is prohibited.

(E) Food not subject to further washing or cooking before serving shall be stored in a manner that protects it against cross-contamination from food requiring washing or cooking.

(F) Packaged food shall not be stored in contact with water or undrained ice. Wrapped sandwiches shall not be stored in direct contact with ice.

(G) Unless its identity is unmistakable, bulk food—such as cooking oil, syrup, salt, sugar or flour—not stored in the product container or package in which it was obtained shall be stored in a container identifying the food by common name.

(H) Enough conveniently located refrigeration facilities or effectively insulated facilities shall be provided to assure the maintenance of potentially hazardous food at required temperatures during storage. Each mechanically refrigerated facility storing potentially hazardous food shall be provided with a numerically-scaled indicating thermometer, accurate within plus or minus three degrees Fahrenheit ($\pm 3^\circ\text{F}$), located to measure the air

temperature in the warmest part of the facility and located to be easily readable. Recording thermometers, accurate to plus or minus three degrees Fahrenheit ($\pm 3^\circ\text{F}$) may be used instead of indicating thermometers.

(I) Potentially hazardous food requiring refrigeration after preparation shall be rapidly cooled to an internal temperature of forty-five degrees Fahrenheit (45°F) or below. Potentially hazardous foods of large volume or prepared in large quantities shall be rapidly cooled, utilizing methods such as shallow pans, agitation, quick chilling or water circulation external to the food container so that the cooling period shall not exceed four (4) hours. Potentially hazardous food to be transported shall be prechilled and held at a temperature of forty-five degrees Fahrenheit (45°F) or below.

(J) Frozen food shall be kept frozen and should be stored at a temperature of zero degrees Fahrenheit (0°F) or below.

(K) Ice intended for human consumption shall not be used as a medium for cooling stored food, food containers or food utensils, with this exception—the ice may be used for cooling tubes conveying beverages or beverage ingredients to a dispenser head. Ice used for cooling stored food and food containers shall not be used for human consumption.

(L) Enough conveniently located hot-food storage facilities shall be provided to assure the maintenance of food at the required temperature during storage. Each hot-food facility storing potentially hazardous food shall be provided with a numerically-scaled indicating thermometer, accurate within plus or minus three degrees Fahrenheit ($\pm 3^\circ\text{F}$), located to measure the air temperature in the coolest part of the facility and located to be easily readable. Recording thermometers, accurate within plus or minus three degrees Fahrenheit ($\pm 3^\circ\text{F}$), may be used instead of indicating thermometers. Where it is impractical to install thermometers on equipment such as *bains-marie*, steam tables, steam kettles, heat lamps, cal-rod units or insulated food transport carriers, a product thermometer must be available and used to check internal food temperature.

(M) The internal temperature of potentially hazardous foods requiring hot storage shall be one hundred forty degrees Fahrenheit (140°F) or above except during necessary periods of preparation. Potentially hazardous food to be transported shall be held at a temperature of one hundred forty degrees Fahrenheit (140°F) or above.

(5) Food shall be prepared with the least possible manual contact, with suitable utensils, on surfaces that have been cleaned prior to

use and should be rinsed and sanitized to prevent cross-contamination. In addition—

(A) Raw fruits and raw vegetables shall be thoroughly washed with potable water before being cooked or served;

(B) Potentially hazardous foods requiring cooking shall be cooked to heat all parts of the food to a temperature of at least one hundred forty degrees Fahrenheit (140°F) with these exceptions—

1. Poultry, poultry stuffings, stuffed meats and stuffings containing meat shall be cooked to heat all parts of the food to at least one hundred sixty-five degrees Fahrenheit (165°F) with no interruption of the cooking process;

2. Pork and any food containing pork shall be cooked to heat all parts of the food to at least one hundred fifty degrees Fahrenheit (150°F); and

3. Rare roast beef shall be cooked to an internal temperature of at least one hundred thirty degrees Fahrenheit (130°F) and rare beef steak shall be cooked to a temperature of one hundred thirty degrees Fahrenheit (130°F) unless otherwise ordered by the immediate consumer;

(C) Reconstituted dry milk and dry milk products may be used in instant desserts and whipped products, or for cooking and baking purposes;

(D) Liquid, frozen, dry eggs and egg products shall be used only for cooking and baking purposes;

(E) Potentially hazardous foods that have been cooked and then refrigerated shall be rapidly reheated throughout to one hundred sixty-five degrees Fahrenheit (165°F) or higher before being served or before being placed in a hot food-storage facility. Steam tables, *bains-marie*, warmers and similar hot food-holding facilities are prohibited for the rapid reheating of potentially hazardous foods;

(F) Nondairy creaming, whitening or whipping agents may be reconstituted on the premises only when they will be stored in sanitized, covered containers not exceeding one (1) gallon in capacity and cooled to forty-five degrees Fahrenheit (45°F) or below within four (4) hours after preparation;

(G) Metal stem-type numerically-scaled indicating thermometers, accurate to within plus or minus two degrees Fahrenheit ($\pm 2^\circ\text{F}$) shall be provided and used to assure the attainment and maintenance of proper internal cooking, holding or refrigeration temperatures of all potentially hazardous foods; and

(H) Potentially hazardous foods shall be thawed in refrigerated units at a temperature not to exceed forty-five degrees Fahrenheit (45°F) or under potable running water of seventy degrees Fahrenheit (70°F) or below, with sufficient water velocity to agitate and

float off loose food particles into the overflow, in a microwave oven when the food will be immediately transferred to conventional cooking facilities as part of a continuous cooking process or when the entire uninterrupted cooking process takes place in the microwave oven, or as part of the conventional cooking process.

(6) During display and service, potentially hazardous food shall be kept at an internal temperature of forty-five degrees Fahrenheit (45°F) or below or at an internal temperature of one hundred forty degrees Fahrenheit (140°F) or above, with this exception—rare roast beef shall be held for serving at a temperature of at least one hundred thirty degrees Fahrenheit (130°F). The following food display and service procedures shall be observed:

(A) Milk and milk products for drinking purposes shall be provided to the consumer in an unopened, commercially-filled package not exceeding one (1) pint in capacity or drawn from a commercially-filled container stored in a mechanically-refrigerated bulk milk dispenser. If a bulk dispenser for milk and milk products is not available and portions of less than one-half (1/2) pint are required for mixed drinks, cereal or dessert service, milk and milk products may be poured from a commercially-filled container of not more than one-half (1/2) gallon capacity;

(B) Cream, half-and-half and nondairy creaming and whitening agents shall be provided in an individual service container or in a protected pour-type pitcher; or they shall be drawn from a refrigerated dispenser designed for this service;

(C) Condiments, seasonings and dressing for self-service use shall be provided in individual packages, from dispensers or from containers protected in accordance with subsection (6)(G) of this rule. Condiments provided for table or counter service shall be individually portioned, with the exception of catsup and other sauces which may be served in the original containers or in pour-type dispensers. Sugar for consumer use shall be provided in individual packages or in pour-type dispensers;

(D) Ice for consumer use shall be dispensed only by employees with scoops, tongs or other ice-dispensing utensils or through automatic self-service, ice-dispensing equipment. Ice-dispensing utensils shall be stored on a clean surface or in the ice with the dispensing utensil's handle extended out of the ice. Between uses, ice transfer receptacles shall be stored in a manner that protects them from contamination. Ice storage bins shall be drained through an air gap;

(E) To avoid unnecessary manual contact with food, suitable dispensing utensils shall be used by employees or provided to consumers who serve themselves. Between uses during service, dispensing utensils shall be stored in the food with the dispensing utensil's handle extended out of the food, or stored clean and dry or stored in running water. Dispensing utensils and malt collars used in preparing frozen desserts shall be stored clean and dry or in a running-water dipper well;

(F) Once served to a consumer, portions of leftover food shall not be served again with this exception—packaged food, other than potentially hazardous food, that is still packaged and still in sound condition may be reserved;

(G) Food on display shall be protected from consumer contamination by the use of packaging or by the use of easily cleanable counter, serving line or salad bar protector devices, display cases or by other effective means. Enough hot- or cold-food facilities shall be available to maintain the required temperature of potentially hazardous food on display; and

(H) Reuse of soiled tableware by self-service consumers returning to the service area for additional food is prohibited. Beverage cups and glasses are exempt from this requirement.

(7) During transportation, food and food utensils shall be kept in covered containers or completely wrapped or packaged to protect them from contamination. Foods in original individual packages do not need to be over-wrapped or covered if the original package has not been torn or broken. During transportation, including transportation to another location for service or catering operations, food shall meet the requirements relating to food protection and food storage in sections (3) and (4) and subsections (4)(A)—(M) of this rule.

(8) No person, while infected with a disease in a communicable form that can be transmitted by foods or who is a carrier of organisms that cause such a disease, or who is afflicted with a boil, an infected wound or an acute respiratory infection, shall work in a food-service establishment in any capacity in which there is a likelihood of a person contaminating food or food-contact surfaces with pathogenic organisms or transmitting disease to other persons.

(9) During all working periods in food-service establishments, employees shall observe good hygienic practices.

(A) Employees shall thoroughly wash their hands and the exposed portions of their arms with soap and warm water before starting work, during work as often as is necessary to keep them clean, and after smoking, eating,

drinking or using the toilet. Employees shall keep their fingernails clean and trimmed.

(B) The outer clothing of all employees shall be clean and employees shall use effective hair restraints to prevent the contamination of food or food-contact surfaces.

(C) Employees shall consume food only in designated dining areas. An area shall not be designated as an employee dining area if consuming food there may result in contamination of other food, equipment, utensils or other items needing protection. Employees shall not use tobacco in any form while engaged in food preparation or service or while in areas used for washing equipment or utensils or for preparing food. Employees shall use tobacco only in designated areas. An area shall not be designated as an employee tobacco-use area if the use of tobacco there may result in contamination of food, equipment, utensils or other items needing protection. Employees shall handle soiled tableware in a manner that minimizes contamination of their hands. Employees shall maintain a high degree of personal cleanliness and shall conform to good hygienic practices during all working periods in the food-service establishment.

(10) Multiuse equipment and utensils shall be constructed and repaired with safe materials, including finishing materials, shall be corrosion-resistant and nonabsorbent, shall be smooth, easily cleanable and durable under conditions of normal use. Single-service articles shall be made from clean, sanitary, safe materials. Equipment, utensils and single-service articles shall not impart odors, color or taste and shall not contribute to the contamination of food.

(A) If solder is used, it shall be composed of safe materials and be corrosive resistant.

(B) Hard maple or an equally nonabsorbent material that meets the general requirements set forth in section (10) of this rule may be used for cutting blocks, cutting boards, salad bowls and baker's tables. Wood may be used for single-service articles such as chopsticks, stirrers or ice cream spoons. The use of wood as a food-contact surface under other circumstances is prohibited.

(C) Materials permitted for repeated use include safe plastic or safe rubberlike materials that are resistant under normal conditions of use to scratching, scoring, decomposition, crazing, chipping and distortion; that are of sufficient weight and thickness to permit cleaning and sanitizing by normal dish-washing methods; and that meet the general requirements set forth in section (10) of this rule.

(D) Mollusk and crustacea shells may be used only once as a serving container. Further reuse of the shells for food service is prohibited.

(E) Reuse of single-service articles is prohibited.

(11) All equipment and utensils, including plasticware, shall be designed and fabricated for durability under conditions of normal use and shall be resistant to denting, buckling, pitting, chipping and crazing. In addition—

(A) Food-contact surfaces shall be easily cleanable, smooth, free of breaks, open seams, cracks, chips, pits and similar imperfections, and free of difficult-to-clean internal corners and crevices. Cast iron may be used as a food-contact surface only if the surface is heated for use such as in grills, griddle tops and skillets. Threads shall be designed to facilitate cleaning; ordinary "V"-type threads are prohibited in food-contact surfaces with this exception—in equipment such as ice makers, hot oil-cooking equipment and hot oil-filtering systems, threads shall be minimized;

(B) Equipment containing bearings and gears that require unsafe lubricants shall be designed and constructed so that the lubricant cannot leak, drip or be forced into food or onto food-contact surfaces. Only safe lubricants shall be used on equipment designed to receive lubrication of bearings and gears on or within food-contact surfaces;

(C) Tubing that conveys beverages or beverage ingredients to dispensing heads may be in contact with stored ice only when the tubing is kept clean, is fabricated from safe materials and is grommeted at entry and exit points to prevent formation of condensate in the ice machines or the ice storage bin. Drainage or drainage tubes from dispensing units shall not pass through the ice machine or the ice storage bin;

(D) Sinks and drain boards shall be self-draining;

(E) Unless designed for in-place cleaning, food-contact surfaces shall be accessible for cleaning and inspection without being disassembled, or by disassembling without the use of tools, or by easy disassembling with the use of only a simple tool such as a mallet, screwdriver or open-end wrench and kept available near the equipment;

(F) Equipment intended for in-place cleaning shall be designed and fabricated so that cleaning and sanitizing solutions can be circulated throughout a fixed system using an effective cleaning and sanitizing regimen; and cleaning and sanitizing solutions will contact all interior food-contact surfaces; and the system is self-draining or capable of being completely evacuated;

(G) Fixed equipment designed and fabricated to be cleaned and sanitized by pressure spray methods shall have sealed electrical wiring, switches and connections;

(H) Indicating thermometers required for immersion into food or cooking media shall be of metal stem-type construction, numerically scaled and accurate within plus or minus two degrees Fahrenheit ($\pm 2^{\circ}\text{F}$);

(I) Surfaces of equipment not intended for contact with food, but which are exposed to splash or food debris or which otherwise require frequent cleaning, shall be designed and fabricated to be smooth, washable, free of unnecessary ledges, projections or crevices, and readily accessible for cleaning. Any such surface shall be of material and in a state of repair so it may be easily maintained in a clean and sanitary condition;

(J) Ventilation hoods and devices shall be designed to prevent grease or condensation from collecting on walls and ceilings and from dripping into food or onto food-contact surfaces. Filters or other grease extracting equipment shall be readily removable for cleaning and replacement if they are not designed to be cleaned in-place; and

(K) Equipment that was installed in a food-service establishment prior to the effective date of this rule, and that does not fully meet all of the design and fabrication requirements of section (11) and subsections (11)(A)—(K) of this rule shall be deemed acceptable in that establishment if it is in good repair, if it is capable of being maintained in a sanitary condition and if the food-contact surfaces are nontoxic. Replacement equipment and new equipment acquired after December 11, 1981 shall meet the requirements of section (11) and subsections (11)(A)—(K) of this rule.

(12) Equipment, including ice makers and ice storage equipment, shall not be located under exposed or unprotected sewer lines or water lines, open stairwells or other sources of contamination with this exception—automatic fire protection sprinkler heads that may be required by law. In addition—

(A) Equipment that is placed on tables or counters, unless portable, shall be sealed to the table or counter or elevated on legs to provide at least a four inch (4")-clearance between the table or counter and the equipment and shall be installed to facilitate the cleaning of the equipment and adjacent areas. Equipment shall be considered portable if it is small and light enough to be moved easily by one (1) person; and if it has no utility connection or a utility connection that disconnects quickly or a flexible utility connection line of sufficient length to permit the equipment to be moved for easy cleaning;