

# Texas Food Establishment Rules

## Field Inspection Manual



Texas Department of State Health Services  
Division for Regulatory Services  
Environmental and Consumer Safety Section  
Policy, Standards, and Quality Assurance Unit  
Public Sanitation and Retail Food Safety Group

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# Texas Food Establishment Rules

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(SEE ANNEX FOR NUMERICALLY SEQUENTIAL INDEX BY PARAGRAPH)

TEXAS ADMINISTRATIVE CODE FORMAT

- Subchapter A – Subchapter
- 228.1 - Section
- (a) Subsection
- (1) Paragraph
- (A) Subparagraph
- (i) Clause
- (I) Subclause
- a- Item
- 1- Subitem

Number in brackets [ ] in red ink denote priority, priority foundation, and core that correlate to item numbers on the Food Inspection Report



TEXAS ADMINISTRATIVE CODE

TITLE 25: HEALTH SERVICES  
PART 1: DEPARTMENT OF STATE HEALTH SERVICES  
CHAPTER 228: TEXAS FOOD ESTABLISHMENT RULES

Subchapter A. General Provisions.

§228.1. Purpose. The purpose of this chapter is to safeguard public health and provide to consumers food that is safe, unadulterated, and honestly presented. The rules in this chapter are based in part upon Code of Federal Regulations, Title 2, Food and Drugs, Parts 1 – 1499 and implement Health and Safety Code, Chapter 437, Regulation of Food Service Establishments, Retail Food Stores, Mobile Food Units, and Roadside Vendors.

§228.2. Definitions. The following definitions apply in the interpretation and application of this Code.

(1) Accredited program--food manager certification program that has been evaluated and listed by the department and conforms to standards set by the department.

(2) Additive--A substance added to food that changes the characteristics of that food.

(3) Adulterated food--A food shall be deemed to be adulterated as specified in the Health and Safety Code §431.081.

(4) Approved--Acceptable to the regulatory authority based on a determination of conformity with principles, practices, and generally recognized standards that protect public health.

(5) Asymptomatic--Not showing obvious symptoms, not producing indications of a disease or other medical condition. An individual infected with a pathogen but not exhibiting or producing any signs or symptoms of vomiting, diarrhea, or jaundice. Symptoms are not shown because the symptoms have been resolve or have subsided, or because the symptoms never manifested.

(6)  $a_w$  --Water activity, indicated by the symbol  $a_w$ , is a measure of the free moisture in a food. It is the quotient of the water vapor pressure of the substance divided by the vapor pressure of pure water at the same temperature.

(7) Balut--is an embryo inside a fertile egg that has been incubated for a period sufficient for the embryo to reach a specific stage of development after which it is removed from incubation before hatching.

(8) Bare hand contact--Handling food with hands without any barriers as described in Subchapter C of this chapter (pertaining to Food).

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(9) Bed and Breakfast Extended--An establishment with more than seven rooms for rent or an establishment that provides food service other than breakfast to overnight guests.

(10) Bed and Breakfast Food Establishment--A Bed and Breakfast that provides food service to other than to its overnight guests.

(11) Bed and Breakfast Limited--An establishment with seven or fewer rooms for rent, serves breakfast to over-night guests, and is not a retail food establishment.

(12) Beverage--A liquid for drinking, including water.

(13) Bottled drinking water--Water that is sealed in bottles, packages, or other containers and offered for sale for human consumption, including bottled mineral water.

(14) Casing--A tubular container for sausage products made of either natural or artificial (synthetic) material.

(15) Central Preparation Facility-- A facility that is an approved and permitted retail food establishment at which food is prepared, stored, and wrapped; and the Mobile Food Unit is supplied with fresh water and ice; and emptied of waste water into a proper waste disposal system, and cleaned, including washing, rinsing, and sanitizing of those food-contact surfaces or items not capable of being immersed in the Mobile Food Unit utensil-washing sink. Use of a private residence as a central preparation facility is prohibited.

(16) Certification number--A unique combination of letters and numbers assigned by a shellfish control authority to a molluscan shellfish dealer according to the provisions of the National Shellfish Sanitation Program.

(17) Cleaned in Place (CIP)--Cleaned in place by the circulation or flowing by mechanical means through a piping system of a detergent solution, water rinse, and sanitizing solution onto or over equipment surfaces that require cleaning, such as the method used, in part, to clean and sanitize a frozen dessert machine. CIP does not include the cleaning of equipment such as band saws, slicers, or mixers that are subjected to in-place manual cleaning without the use of a CIP system.

(18) *Clostridium botulinum*--The name of a group of rod-shaped bacteria that grow best in low oxygen conditions and cause a serious paralytic illness called botulism. Foodborne botulism is caused by eating foods that contain botulinum toxin.

(19) Code of Federal Regulations (CFR)--Citations to the CFR refer sequentially to the Title, Part, and Section numbers, such as 21 CFR §178.1010 refers to Title 21, Part 178, §1010. The compilation of the general and permanent rules published in the *Federal Register* by the executive departments and agencies of the federal government which are published annually by

**§228.2 (19)**

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the U.S. Government Printing Office and contains FDA rules in 21 CFR, USDA rules in 7 CFR and 9 CFR, EPA rules in 40 CFR, and Wildlife and Fisheries rules in 50 CFR.

(20) Color additive--Any material imparting color to a food as defined in the Health and Safety Code §431.002(6).

(21) Commingle--Combine shellstock harvested on different days or from different growing areas as identified on the tag or label or to combine shucked shellfish from containers with different container codes or different shucking dates.

(22) Comminuted--Reduced in size by methods including chopping, flaking, grinding, or mincing. The term includes fish or meat products that are reduced in size and restructured or reformulated such as gefilte fish, gyros, ground beef, and sausage; and a mixture of two or more types of meat that have been reduced in size and combined, such as sausages made from two or more meats.

(23) Common dining area--A central location where people gather to eat. The term does not apply to a kitchenette or dining area located within a resident's private living quarters.

(24) Conditional employee--A potential food employee to whom a job offer is made, conditional upon responses to subsequent medical questions or examinations designed to identify potential food employees who may be suffering from a disease that can be transmitted through food and done in compliance with Title 1 of the Americans with Disabilities Act (ADA) of 1990.

(25) Confirmed disease outbreak--A foodborne disease outbreak in which laboratory analysis of appropriate specimens identifies a causative agent and epidemiological analysis implicates food as the source of the illness.

(26) Consumer--A person, who is a member of the public, takes possession of food, is not functioning in the capacity of an operator of a food establishment or food processing plant, and does not offer the food for resale.

(27) Controlled atmosphere packaging--A method of packaging food in which the atmosphere of a package of food is modified such that until the package is opened, its composition is different from air, and continuous control of that atmosphere is maintained, such as by using oxygen scavengers or a combination of total replacement of oxygen, non-respiring food, and impermeable packaging material.

(28) Cook chill packaging--A method of packaging food in which cooked food is hot filled into impermeable bags which have the air expelled and are then sealed or crimped closed. Bagged food is rapidly chilled and refrigerated at temperatures that inhibit the growth of psychrotrophic pathogens.

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(29) Core item--A provision in this chapter that is not designated as a Priority item or a Priority Foundation item and includes an item that usually relates to general sanitation, operational controls, sanitation operating procedures (SSOPs) facilities or structures, equipment design, or general maintenance.

(30) Corrosion-resistant material--A material that maintains acceptable surface cleanability characteristics under prolonged influence of the food to be contacted, the normal use of cleaning compounds and sanitizing solutions, and other conditions of the use environment.

(31) Counter-mounted equipment--Equipment that is not portable and is designed to be mounted off the floor on a table, counter, or shelf.

(32) Critical control point--A point or procedure in a specific food system where loss of control may result in an unacceptable health risk.

(33) Critical limit--The maximum or minimum value to which a physical, biological, or chemical parameter must be controlled at a critical control point to minimize the risk that the identified food safety hazard may occur.

(34) Cut leafy greens--Fresh leafy greens whose leaves have been cut, shredded, sliced, chopped, or torn. This does not include the harvest cut.

(35) Dealer--Person who is authorized by a shellfish control authority for the activities of shellstock shipper, shucker-packer, repacker, re-shipper, or depuration processor of molluscan shellfish according to the provisions of the National Shellfish Sanitation Program.

(36) Department--The Texas Department Of State Health Services, Division For Regulatory Services, Environmental And Consumer Safety Section, P.O. Box 149347, Mail Code 1987 Austin, Texas 78714-9347, website: [www.dshs.state.tx.us](http://www.dshs.state.tx.us).

(37) Disclosure--A written statement that clearly identifies the animal-derived foods which are, or can be ordered, raw, undercooked, or without otherwise being processed to eliminate pathogens in their entirety, or items that contain an ingredient that is raw, undercooked, or without otherwise being processed to eliminate pathogens.

(38) Drinking water--Water traditionally known as “potable water” and that meets 30 TAC, §§290.101 - 290.114, 290.117 - 290.119, and 290.121 (relating to Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Supply Systems). Drinking water includes the term “water” except where the term used connotes that the water is not potable, such as “boiler water,” “mop water,” “rainwater,” “wastewater,” and “nondrinking” water.

(39) Dry storage area--A room or area designated for the storage of packaged or containerized bulk food that is not potentially hazardous time/temperature control for safety

**§228.2 (39)**

**§228.2 (46)**

(TCS) food and dry goods such as single-service items.

(40) Easily cleanable--A characteristic of a surface that allows effective removal of soil by normal cleaning methods, is dependent on the material, design, construction, and installation of the surface, and varies with the likelihood of the surface's role in introducing pathogenic or toxigenic agents or other contaminants into food based on the surface's approved placement, purpose and use. Easily cleanable includes a tiered application of the criteria that qualifies the surface as easily cleanable as to different situations in which varying degrees of cleanability are required such as:

(A) the appropriateness of stainless steel for a food preparation surface as opposed to the lack of need for stainless steel to be used for floors or for tables used for consumer dining; or

(B) the need for a different degree of cleanability for a utilitarian attachment or accessory in the kitchen as opposed to a decorative attachment or accessory in the consumer dining area.

(41) Easily movable--Portable, mounted on casters, gliders, or rollers, or provided with a mechanical means to safely tilt a unit of equipment for cleaning. Also, having no utility connection, a utility connection that disconnects quickly, or a flexible utility connection line of sufficient length to allow the equipment to be moved for cleaning of the equipment and adjacent area.

(42) Egg--Shell egg of an avian species such as chicken, duck, goose, guinea, quail, ratites, or turkey. The definition of an egg does not include a balut, shell egg of reptile species such as an alligator, or an egg product.

(43) Egg product--All or portion of the contents found inside eggs separated from the shell and pasteurized in a food processing plant, with or without added ingredients, and that is intended for human consumption such as dried, frozen, or liquid eggs. Egg product does not include food which contains egg only in a relatively small portion such as cake mixes.

(44) Employee--The permit holder, person in charge, person having supervisory or management duties, person on the payroll, family member, volunteer, person performing work under contractual agreement, or other person working in a food establishment.

(45) EPA--U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, D.C. 20460, telephone (202) 272-0167, website: [www.epa.gov](http://www.epa.gov).

(46) Equipment--An article used in the operation of a food establishment such as a freezer, grinder, hood, icemaker, meat block, mixer, oven, reach-in-refrigerator, scale, sink, slicer, stove, table, temperature measuring device for ambient air, vending machine, or

**§228.2 (46)**

warewashing machine. This term does not include items used for handling or storing large quantities of packaged foods that are received from a supplier in a cased or overwrapped lot, such as hand trucks, forklifts, dollies, pallets, racks, and skids.

(47) Event--A unique public gathering of persons at which food products will be served directly to consumers, such as a festival, bazaar, carnival, circus, fund-raiser, public exhibition, celebration, sporting event, or other public gathering which can be civic, political, public or educational for which an appropriate regulatory authority would grant permission for the operation of the event, whether by permit, license or other official written document.

(48) Exclude--To prevent a person from working as a food employee or entering a food establishment except for those areas open to the general public.

(49) Exotic animal--Member of a species of game animals not indigenous to this state including axis deer, Nilgai antelope, red sheep, or other cloven-hoofed ruminant animals. Exotic animals are considered livestock in this chapter and are amenable to inspection under Health and Safety Code, §433.035, referring to Inspection and Other Regulation of Exotic Animals in Interstate Commerce.

(50) FDA--The U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, 5100 Paint Branch Parkway, College Park, Maryland 20740, telephone 1-888-723-3366, website [www.fda.gov/Food](http://www.fda.gov/Food).

(51) Fish--Fresh or saltwater finfish, crustaceans and other forms of aquatic life (including alligator, frog, aquatic turtle, jellyfish, sea cucumber, and sea urchin and the roe of such animals) other than birds or mammals, and all mollusks, if such animal life is intended for human consumption. Fish includes an edible human food product derived in whole or in part from fish, including fish that have been processed in any manner.

(52) Food--A 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, or chewing gum.

(53) Food additive--A substance added to food that changes the characteristics of the food as described in Health and Safety Code, §431.002(17).

(54) Foodborne disease outbreak--The occurrence of two or more cases of a similar illness resulting from the ingestion of a common food.

(55) Food-contact surface--A surface of equipment or a utensil with which food normally comes into contact or a surface of equipment or a utensil from which food may drain, drip, or splash into a food or onto a surface normally in contact with food.

(56) Food employee--An individual working with unpackaged food, food equipment or utensils, or food-contact surfaces.

**§228.2 (57)**

**§228.2 (61)**

(57) Food establishment--A food establishment means an operation that stores, prepares, packages, serves, vends, or otherwise provides food for human consumption as follows:

(A) a restaurant, retail food store, satellite or catered feeding location, catering operation if the operation provides food directly to a consumer or to a conveyance used to transport people, market, vending location, (machine), self-service food market, conveyance used to transport people, institution, or food bank;

(B) an establishment that relinquishes possession of food to a consumer directly, or indirectly through a delivery service such as home delivery of grocery orders or restaurant takeout orders, or delivery service that is provided by common carriers; and

(C) includes an element of the operation such as a transportation vehicle or a central preparation facility that supplies a vending location or satellite feeding location unless the vending or feeding location is permitted by the regulatory authority and an operation that is conducted in a mobile, stationary, temporary, or permanent facility or location; where consumption is on or off the premises; and regardless of whether there is a charge for the food.

(D) food establishment does not include an establishment that offers only prepackaged foods that are not time / temperature control for safety food, a produce stand that only offers whole, uncut fresh fruits and vegetables, a food processing plant, a cottage food industry, an area where cottage food is prepared, sold or offered for human consumption, a Bed and Breakfast Limited facility as defined in this chapter, or a private home that receives catered or home-delivered food.

(58) Food processing plant--A commercial operation that manufactures, packages, labels, or store foods for human consumption and does not provide food directly to a consumer, and a food establishment as defined under paragraph (57) of this section.

(59) Food Protection Manager Certification--A document obtained by a person in charge who demonstrates knowledge by being a food protection manager that is certified by a food protection manager certification program that is evaluated and listed by a Conference for Food Protection-recognized accrediting agency as conforming to the Conference for Food Protection Standards for Accreditation of food Protection Manager Certification Programs.

(60) Game animal--An animal, the products of which are food, that is not classified as cattle, sheep, swine, goat, horse, mule or other equines as in 9 CFR 301, Definitions, as poultry in 9 CFR 381, Poultry Products Inspection Regulations; or as fish as defined under paragraph (51) of this section. Includes mammals such as reindeer, elk, deer, antelope, water buffalo; bison, rabbit, squirrel, opossum, raccoon, nutria or muskrat, and non-aquatic reptiles such as land snakes. A game animal does not include ratites.

(61) General use pesticide--A pesticide that is not classified by EPA for restricted use as specified in 40 CFR §152.175 or is not limited to use by or under the direct supervision of a

**§228.2 (61)**

**§228.2 (70)**

certified applicator licensed by the Texas Department of Agriculture or by the Texas Structural Pest Control Service as applicable.

(62) Grade ‘A’ standards--The requirements of the United States Public Health Service/FDA “Grade A Pasteurized Milk Ordinance” with which certain fluid and dry milk and milk products comply.

(63) Group residence--A private or public housing corporation or institutional facility that provides living quarters and meals. The term includes a domicile for unrelated persons such as a retirement home, correctional facility, or a long-term care facility.

(64) HACCP plan--A written document that delineates the formal procedures for following the Hazard Analysis Critical Control Point principles developed by The National Advisory Committee on Microbiological Criteria for Foods.

(65) Handwashing sink--A lavatory, trough, basin, or vessel for washing, a wash basin, or a plumbing fixture especially placed for use in personal hygiene and designed only for the washing of hands. It includes an automatic handwashing facility.

(66) Hazard--A biological, chemical, or physical property that may cause an unacceptable consumer health risk.

(67) Health practitioner--A physician licensed to practice medicine, or if allowed by law, an advanced registered practice nurse, physician assistant, or similar medical professional.

(68) Hermetically sealed container--A container that is designed and intended to be secure against the entry of microorganisms and, in the case of low acid canned foods, to maintain the commercial sterility of its contents after processing.

(69) Highly susceptible population--Persons who are more likely than other people in the general population to experience foodborne disease because they are immunocompromised, preschool aged children, or older adults and are obtaining food at a facility that provides services such as custodial care, health care, or assisted living. Examples of custodial or health care facilities or of assisted living facilities include but are not limited to child or adult day care centers, kidney dialysis centers, hospitals, nursing homes, or senior centers providing nutritional or socialization services.

(70) Imminent health hazard--A significant threat or danger to health that is considered to exist when there is evidence sufficient to show that a product, practice, circumstance, or event creates a situation that requires immediate correction or cessation of operations to prevent injury based on the number of potential injuries and the nature, severity, and duration of the anticipated injury.



**§228.2 (71)**

**§228.2 (81)**

(71) Injected--Manipulating meat to which a solution has been introduced into its interior by processes that are referred to as “injecting,” “pump marinating,” or “stitch pumping.”

(72) Juice--The aqueous liquid expressed or extracted from one or more fruits or vegetables, purées of the edible portions of one or more fruits or vegetables, or any concentrates of such liquid or purée. For purposes of HAACP it does not include liquids, purées, or concentrates that are not used as beverages or ingredients of beverages.

(73) Kitchenware--Food preparation and storage utensils.

(74) Law--Applicable local, state, and federal statutes, regulations, and ordinances.

(75) Leafy greens--Includes iceberg lettuce, romaine lettuce, leaf lettuce, butter lettuce, baby leaf lettuce, escarole, endive, spring mix, spinach, cabbage, kale, arugula, and chard. This term does not include herbs such as cilantro or parsley.

(76) License--The document issued by the regulatory authority that authorizes a person to operate a food establishment. Can also be referred to as a permit as defined under paragraph (92) of this section.

(77) License holder--The entity that is legally responsible for the operation of the food establishment such as the owner, the owner’s agent, or other person and possesses a valid permit to operate a food establishment. Can also be referred to as a permit holder as defined under paragraph (93) of this section.

(78) Linens--Fabric items such as cloth hampers, cloth napkins, tablecloths, wiping cloths, and work garments including cloth gloves.

(79) *Listeria monocytogenes*--A rod-shaped bacteria that can be found in soil and water. Animals can carry the bacterium without appearing to be ill and can contaminate foods of animal origin. A serious infection called Listeriosis is usually caused by eating food contaminated with the bacterium *Listeria monocytogenes*.

(80) Livestock--Cattle, sheep, swine, goats, horses, mules, other equine, poultry, domesticated rabbits, exotic animals, and domesticated birds. Livestock are amenable to inspection.

(81) Major Food Allergen--A food allergen is a food protein that causes an adverse immune response. The 8 specific foods that are known as major food allergens include dairy, eggs, wheat, soy, peanuts, tree nuts, fish and shellfish or any food ingredients that contain protein derived from these foods. This does not include any highly refined oil derived from a food specified in this paragraph or any ingredient that is exempt under the petition or notification process specified in the Food Allergen Labeling and Consumer Protection Act of 2004 (Public Law 108-282).

**§228.2 (82)**

**§228.2 (89)**

(82) Meat—The flesh of animals used as food including the dressed flesh of cattle, swine, sheep, or goats and other edible animals, except fish as defined under paragraph (51) of this section, poultry as defined under paragraph (103) of this section, and game animals as defined under paragraph (60) of this section that are offered for human consumption.

(83) Mechanically tenderized—Manipulating meat with deep penetration by processes which may be referred to as “blade tenderizing,” “jaccarding”, “pinning,” “needling,” or using blades, pins, needled or any mechanical device. It does not include processes by which solutions are injected into the meat.

(84) mg/L—Milligrams per liter, which is the metric equivalent of parts per million (ppm).

(85) Mobile Food Unit (MFU)—A vehicle mounted, self or otherwise propelled, self-contained food service operation, designed to be readily movable (including, but not limited to catering trucks, trailers, push carts, and roadside vendors) and used to store, prepare, display, serve or sell food. Mobile units must completely retain their mobility at all times. A Mobile Food Unit does not mean a stand or a booth. A roadside food vendor is classified as a MFU.

(86) Modified atmosphere packaging—A method of packaging food in which the atmosphere of a package of food is modified so that its composition is different from air but the atmosphere may change over time due to the permeability of the packaging material or the respiration of the food. Modified atmosphere packaging includes: reduction in the proportion of oxygen, total replacement of oxygen, or an increase in the proportion of other gases such as carbon dioxide or nitrogen.

(87) Molluscan shellfish—Any edible species of fresh or frozen oysters, clams, mussels, and scallops or edible portions thereof, except when the scallop product consists only of the shucked adductor muscle.

(88) Non-Continuous cooking—The cooking of food in a food establishment using a process in which the initial heating of the food is intentionally halted so that it may be cooled and held for complete cooking at a later time prior to sale or service. It does not include cooking procedures that only involve temporarily interrupting or slowing an otherwise continuous cooking process.

(89) Non-Time/temperature Control for Safety (TCS) food (NTCS)—(formerly non-Potentially Hazardous Food (non-PHF)) An air-cooled hard-boiled egg with shell intact, or an egg with shell intact that is not hard-boiled, but has been pasteurized to destroy all viable *salmonella*. A food in an unopened hermetically sealed container that is commercially processed to achieve and maintain commercial sterility under conditions of non-refrigerated storage and distribution. A food that because of its pH or  $A_w$  value, or interaction of  $A_w$  and pH values, is designated as a NTCS food in Figure A and Figure B in §228.2(144). A food that is designated as Product Assessment Required (PA) in Figure A and Figure B in §228.2(144) and has

**§228.2 (89)**

**§228.2 (96)**

undergone a PA showing that the growth or toxin formation of pathogenic microorganisms that are reasonably likely to occur in that food is precluded due to either:

(A) intrinsic factors including added or natural characteristics of the food such as preservatives, antimicrobials, humectants, acidulants, or nutrients;

(B) extrinsic factors including environmental or operational factors that affect the food such as packaging, modified atmosphere such as reduced oxygen packaging, shelf life and use, or temperature range of storage and use;

(C) a combination of intrinsic and extrinsic factors; or

(D) a food that does not support the growth of or toxin formation of pathogenic microorganisms in accordance with one or more of the conditions above in this definition even though the food may contain a pathogenic microorganism or chemical or physical contaminant at a level sufficient to cause illness or injury.

(90) Outfitter operation--Any operation such as but not limited to trail rides, bus tours, harbor cruises or river raft trips where food is offered to patrons and which operates out of a central preparation location or food establishment.

(91) Packaged--Bottled, canned, cartoned, bagged, or wrapped, whether in a food establishment or in a food processing plant. Does not include wrapped or placed in a carry-out container to protect the food during service or delivery to the consumer by a food employee upon consumer request.

(92) Permit--The document issued by the regulatory authority that authorizes a person to operate a food establishment. Can also be referred to as a license as per paragraph (76) of this section.

(93) Permit holder--The entity that is legally responsible for the operation of the food establishment such as the owner, the owner's agent, or other person who possesses a valid permit to operate a food establishment. Can also be referred to as a license holder as per paragraph (77) of this section.

(94) Person--An association, corporation, individual, partnership, other legal entity, government, or governmental subdivision or agency.

(95) Person in charge (PIC)--The individual present at a food establishment who is responsible for the operation at the time of inspection.

(96) Personal care items--Items or substances that may be poisonous, toxic, or a source of contamination and are used to maintain or enhance a person's health, hygiene, or appearance.

**§228.2 (96)**

**§228.2 (103)**

Includes but is not limited to medicines, first aid supplies, cosmetics, and toiletries such as tooth paste and mouthwash.

(97) pH--The symbol for the negative logarithm of the hydrogen ion concentration, which is a measure of the degree of acidity or alkalinity of a solution. Values between 0 and 7 indicate acidity and values between 7 and 14 indicate alkalinity. The value for pure distilled water is 7, which is considered neutral.

(98) Physical facilities--The structure and interior surfaces of a food establishment including accessories such as soap and towel dispensers and attachments such as light fixtures and heating or air conditioning system vents.

(99) Plumbing code--The International Plumbing Code, 2009 edition, including appendices C, E, F, and G, published by the International Code Council as amended by 16 TAC §70.101, Amendments to Mandatory Building Codes, or a Plumbing Code adopted by a local regulatory authority, whichever is more stringent.

(100) Plumbing fixture--A receptacle or device that is either temporarily or permanently connected to the water distribution system of the premises and demands a supply of water from the system or discharges used water, waste materials, or sewage directly or indirectly to the drainage system of the premises.

(101) Plumbing system--The water supply and distribution pipes; plumbing fixtures and traps, soil, waste, and vent pipes, sanitary and storm sewers and building drains, including their respective connections, devices, and appurtenances within the premises; and water-treating equipment.

(102) Poisonous or toxic materials--Substances that are not intended for ingestion and are in the following four categories:

(A) cleaners and sanitizers including but not limited to cleaning and sanitizing agents and agents such as caustics, acids, drying agents, polishes, and other chemicals;

(B) pesticides including substances such as insecticides and rodenticides;

(C) substances necessary for the operation and maintenance of the establishment including but not limited to nonfood grade lubricants and personal care items that may be deleterious to health; and

(D) substances not necessary for the operation and maintenance of the establishment and are on the premises for retail sale, such as petroleum products and paints.

(103) Poultry--Any domesticated bird (chickens, turkeys, ducks, geese, guineas, ratites or squabs), whether alive or dead, as defined in 9 CFR 381.1 Poultry Products Inspection

**§228.2 (103)**

**§228.2 (111)**

Regulations Definitions, Poultry and in Health and Safety Code, §433.003, referring to Texas Meat and Poultry Inspection Act, and any migratory waterfowl or game bird, pheasant, partridge, quail, grouse, or pigeon, whether live or dead, as defined in 9 CFR 362.1 Voluntary Poultry Inspection Regulations Definitions, and in Health and Safety Code, §433.003.

(104) Premises—The physical facility, its contents, and the contiguous land or property under the control of the permit holder or the physical facility, its contents and the land or property not described previously if its facilities and contents are under the control of the permit holder and may impact food establishment personnel, facilities, or operations, and a food establishment is only one component of the larger operation such as a health care facility, hotel, motel, school, recreational camp, or prison.

(105) Primal cut—A basic major cut into which carcasses and sides of meat are separated, such as a beef round, pork loin, lamb flank, or veal breast.

(106) Priority item—Application of a provision from this chapter that contributes directly to the elimination, prevention, or reduction of hazards associated with food borne illness or injury to an acceptable level to an acceptable level. There is no other provision that more directly controls the hazard. Includes items with a quantifiable measure to show control of hazards such as cooking, reheating, cooling, and handwashing. It is denoted in this chapter with a superscript P<sup>(P)</sup>.

(107) Priority Foundation Item—A provision in this chapter whose application supports, facilitates, or enables one or more priority items. Includes an item that requires the purposeful incorporation of specific actions, equipment or procedures by industry management to attain control of risk factors that contribute to foodborne illness or injury, for example: personnel training, infrastructure or necessary equipment, HACCP plans, documentation or record keeping, and labeling. It is denoted in this chapter with a super script Pf<sup>(Pf)</sup>.

(108) Private Water System—A drinking water system that is not connected to a public water system and not regulated by the Texas Commission on Environmental Quality.

(109) Psychrotrophic organisms—Organisms or bacteria that are capable of surviving or even thriving in a cold environment. They are responsible for spoiling refrigerated foods.

(110) Public water system—A drinking water system that complies with 30 Texas Administrative Code (TAC), §§290.101 — 290.121 (relating to Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Supply Systems).

(111) Pushcart—A non-self-propelled Mobile Food Unit limited to serving foods requiring a limited amount of preparation as authorized by the regulatory authority and is readily movable by one or two persons. A pushcart is classified as a Mobile Food Unit. A pushcart does

**§228.2 (111)**

**§228.2 (113)(I)**

not include non-self-propelled units owned and operated within a retail food store. This type of mobile unit requires the support of a Central Preparation Facility.

(112) Ratite--Diverse group of large flightless birds that includes emus, ostrich, rhea or kiwis.

(113) Ready-to-eat (RTE) food--Food in a form that is edible without additional preparation to achieve food safety, as specified under §§228.71(a)(1)-(3), or (b) of these rules, referring to food. RTE food can be raw or partially cooked animal food and the consumer is advised as specified under §§228.71(a)(4)(A) and (B) of this title referring to food. RTE food is food that is prepared in accordance with a variance that is granted as specified under §228.71(a)(4)(A) and (C). RTE food may receive additional preparation for palatability or aesthetic, epicurean, gastronomic, or culinary purposes. RTE food includes the following:

(A) raw animal food that is cooked as specified under §§228.71(a)(1) or (a)(2), or frozen as specified under §228.72(a)(1) of this title;

(B) raw fruits and vegetables that are washed as specified under §228.66(e) of this title;

(C) fruits and vegetables that are cooked for hot holding, as specified under §228.71(a)(3) of this title;

(D) all time/temperature controlled food that is cooked to the temperature and time required for the specific food under §228.71(a) of this title, and cooled as specified in §228.75(d) of this title;

(E) plant food for which further washing, cooking, or other processing is not required for food safety, and from which rinds, peels, husks, or shells, if naturally present are removed;

(F) substances derived from plants such as spices, seasonings, and sugar;

(G) a bakery item such as bread, cakes, pies, fillings, or icing for which further cooking is not required for food safety;

(H) the following products that are produced in accordance with USDA guidelines and that have received a lethality treatment for pathogens: dry, fermented sausages, such as dry salami or pepperoni; salt-cured meat and poultry products, such as prosciutto ham, country cured ham, and Parma ham; and dried meat and poultry products, such as jerky or beef sticks; and

(I) foods manufactured according to 21 CFR 113, Thermally Processed Low-Acid Foods Packaged in Hermetically Sealed Containers.

**§228.2 (114)**

**§228.2 (124)**

(114) Reduced oxygen packaging (ROP)--The reduction of the amount of oxygen in a package by removing oxygen, displacing oxygen and replacing it with another gas or combination of gases, or otherwise controlling the oxygen content to a level below that normally found in the atmosphere (approximately 21% at sea level). It is a process that involves a food for which the hazards of *Clostridium botulinum* or *Listeria monocytogenes* require control in the final packaged form. ROP includes cook chill packaging, controlled atmosphere packaging, modified atmosphere packaging, Sous vide packaging, and vacuum packaging.

(115) Refuse--Solid waste not carried by water through the sewage system

(116) Regulatory authority--The local, state, or federal enforcement body or authorized representative having jurisdiction over the food establishment.

(117) Reminder--A written statement concerning the health risk of consuming animal foods raw, undercooked, or without otherwise being processed to eliminate pathogens.

(118) Re-service--The transfer of food that is unused and returned by a consumer after being served or sold and in the possession of the consumer to another person.

(119) Restrict--To limit the activities of a food employee so that there is no risk of transmitting a disease that is transmissible through food and the food employee does not work with exposed food, clean equipment, utensils, linens; and unwrapped single-service or single-use articles.

(120) Restricted egg--Any check, dirty egg, incubator reject, inedible, leaker, or loss as defined in 9 CFR 590.

(121) Restricted use pesticide--A pesticide product that contains the active ingredients specified in 40 CFR §152.175. Pesticides classified for restricted use, and that are limited to use by or under the direct supervision of a certified applicator licensed by the Texas Department of Agriculture or by the Texas Structural Pest Control Service as applicable.

(122) Risk--The likelihood that an adverse health effect will occur within a population as a result of a hazard in a food.

(123) Roadside food vendor--A person who operates a mobile retail food store from a temporary location adjacent to a public road or highway. Food is not prepared or processed by a roadside food vendor. A roadside food vendor is classified as a Mobile Food Unit.

(124) Safe Material--An article manufactured from or composed of materials that may not reasonably be expected to result either directly or indirectly in their becoming a component of or otherwise affecting the characteristics of any food. An additive that is used as specified in the Health and Safety Code, Chapter 431, or other materials that are not additives and that are used in conformity with applicable regulations of the FDA.

**§228.2 (125)**

(125) Sanitization--The application of cumulative heat or chemicals on cleaned food-contact surfaces that, when evaluated for efficacy, is sufficient to yield a reduction of 5 logs, which is equal to a 99.999% reduction, of representative disease microorganisms of public health importance.

(126) Sealed--Free of cracks or other openings that allow the entry or passage of moisture.

(127) Self-Service Food Market--a market that is unstaffed and offers prepackaged non-time/temperature control for safety food and prepackaged refrigerated or frozen time/temperature control for safety food that is stored and displayed in equipment that complies with §228.225 of this title.

(128) Service animal--a canine that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, sensory, psychiatric, intellectual or other mental disability as per Health and Safety Code, §437.023.

(129) Servicing area--A base location to which a Mobile Food Unit or transportation vehicle returns regularly for such things as vehicle cleaning, discharging liquid or solid wastes, refilling water tanks and ice bins, and boarding food. No food preparation, service or utensil/warewashing is conducted at a Servicing Area.

(130) Sewage--Liquid waste containing animal or vegetable matter in suspension or solution and may include liquids containing chemicals in solution.

(131) Shellfish control authority--A state, federal, foreign, tribal, or other government entity legally responsible for administering a program that includes certification of molluscan shellfish harvesters and dealers for interstate commerce.

(132) Shellstock--Raw, in-shell molluscan shellfish.

(133) Shiga toxin-producing *Escherichia coli* (STEC)--Any *E. coli* capable of producing Shiga toxins (also called verocytotoxins or “Shiga-like” toxins). STEC infections can be asymptomatic or may result in a spectrum of illness ranging from mild non-bloody diarrhea to hemorrhagic colitis (i.e., bloody diarrhea), to hemolytic uremic syndrome (HUS – a type of kidney failure). Examples of serotypes of STEC include: *E. coli* O157:H7; *E. coli* O157:NM; *E. coli* O26:H11; *E. coli* O145:NM; *E. coli* O103:H2; and *E. coli* O111:NM. STEC are sometimes referred to as VTEC, verocytotoxigenic *E. coli*, or as EHEC, Enterohemorrhagic *E. coli*. EHEC are a subset of STEC which can cause hemorrhagic colitis or HUS.

(134) Shucked shellfish--Molluscan shellfish that have one or both shells removed.

(135) Single-service articles--Tableware, carry-out utensils, and other items such as bags,



**§228.2 (135)**

containers, placemats, stirrers, straws, toothpicks, and wrappers that are designed and constructed for one time, one person use after which they are intended for discard.

(136) Single-use articles--Utensils and bulk food containers designed and constructed to be used once and discarded. Includes items such as wax paper, butcher paper, plastic wrap, formed aluminum food containers, jars, plastic tubs or buckets, bread wrappers, pickle barrels, ketchup bottles, and number 10 cans which do not meet the materials, durability, strength, and cleanability specifications under Subchapter D (pertaining to Equipment, Utensils, and Linens).

(137) Slacking--The process of moderating the temperature of a food such as allowing a food to gradually increase from a temperature of -23 degrees Celsius (-10 degrees Fahrenheit) to -4 degrees Celsius (25 degrees Fahrenheit) in preparation for deep-fat frying or to facilitate even heat penetration during the cooking of previously block-frozen food such as shrimp.

(138) Smooth--A food-contact surface having a surface free of pits and inclusions with cleanability equal to or exceeding that of (100 grit) number 3 stainless steel. A nonfood-contact surface of equipment having a surface equal to that of commercial grade hot-rolled steel free of visible scale. A floor, wall, or ceiling having an even or level surface with no roughness or projections that causes it to be difficult to clean.

(139) Sous vide packaging--A method of packaging food in which raw or partially cooked food is vacuum packaged in an impermeable bag, cooked in the bag, rapidly chilled, and refrigerated at temperatures that inhibit the growth of psychrotrophic pathogens.

(140) Specialized processing method--A method of preparing certain foods that includes but is not limited to smoking food as a method of food preservation not as a method of flavor enhancement, curing food, using food additives or adding components to preserve and / or render a food so it is not a time / temperature control food for safety such as sushi rice, packaging food using a reduced oxygen method, operating a Molluscan shellfish life-support system display tank to store and display shellfish offered for human consumption, custom processing animals for personal use as food only such as indigenous deer processing, preparing food by a method determined by the regulatory authority as requiring a variance, or sprouting seeds or beans in a retail food establishment such as alfalfa or wheat grass.

(141) Tableware--Eating, drinking, and serving utensils for table use such as flatware including forks, knives, and spoons; hollowware including bowls, cups, serving dishes, tumblers, and plates.

(142) Temperature measuring device--A thermometer, thermocouple, thermistor, or other device that indicates the temperature of food, air, or water.

(143) Temporary food establishment--A food establishment that operates for a period of no more than 14 consecutive days in conjunction with a single event or celebration.

**§228.2 (144)**

**§228.2 (151)**

(144) Time/temperature Control for Safety (TCS) food (TCS)--(formerly Potentially Hazardous Food (PHF)) A food that requires time/temperature control for safety to limit pathogenic microorganism growth or toxin formation. An animal food that is raw or heat-treated. A plant food that is heat-treated or consists of raw seed sprouts, cut melons, cut leafy greens, cut tomatoes or mixture of cut tomatoes that are not modified in a way so that they are unable to support pathogenic microorganism growth or toxin formation, or garlic-in-oil mixtures that are not modified in a way so that they are unable to support pathogenic microorganism growth or toxin formation. Except as specified in Tables A and B of this definition, a food that because of the interaction of  $A_w$  and pH values is designated as Product Assessment Required (PA) in Table A or B of this definition:

Figure: 25 TAC §228.2(144)

(145) USDA--The United States Department of Agriculture, 1400 Independence Ave., S.W., Washington, DC 20250, phone: (202) 720-2791, website: [www.usda.gov](http://www.usda.gov).

(146) Utensil--A food-contact implement or container used in the storage, preparation, transportation, dispensing, sale, or service of food, such as kitchenware or tableware that is multiuse, single-service, or single-use; gloves used in contact with food; temperature sensing probes of food temperature measuring devices; and probe-type price or identification tags used in contact with food.

(147) Vacuum packaging--A method of packaging food in which air is removed from a package of food and the package is hermetically sealed so that a vacuum remains inside the package.

(148) Variance--A written document issued by the regulatory authority that authorizes a modification or waiver of one or more requirements of this chapter if, in the opinion of the regulatory authority, a health hazard or nuisance will not result from the modification or waiver.

(149) Vending machine--A self-service device that, upon insertion of a coin, paper currency, token, card, or key, or by optional manual operation, dispenses unit servings of food in bulk or in packages without the necessity of replenishing the device between each vending operation.

(150) Vending machine location--The room, enclosure, space, or area where one or more vending machines are installed and operated and includes the storage areas and areas on the premises that are used to service and maintain the vending machines. This does not include Self-Service Food Markets.

(151) Warewashing--The cleaning and sanitizing of utensils and food-contact surfaces of equipment.

**§228.2 (152)**

**§228.2 (152)**

(152) Whole-muscle, intact beef--Whole muscle beef that is not injected, mechanically tenderized, reconstructed, or scored and marinated, from which beef steaks may be cut.

Figure: 25 TAC §228.2(144)

Table A. Interaction of PH and  $A_w$  for control of spores in FOOD heat-treated to destroy vegetative cells and subsequently PACKAGED

$A_w$ values	pH: 4.6 or less	pH: > 4.6 - 5.6	pH: > 5.6
<0.92	NTCS FOOD*	NTCS FOOD	NTCS FOOD
> 0.92 - 0.95	NTCS FOOD	NTCS FOOD	PA**
> 0.95	NTCS FOOD	PA	PA

\* TCS FOOD means TIME/TEMPERATURE CONTROL FOR SAFETY (TCS) FOOD

\*\* PA means Product Assessment required

Table B. Interaction of PH and  $A_w$  for control of vegetative cells and spores in FOOD not heat-treated or heat-treated but not PACKAGED

$A_w$ values	pH: < 4.2	pH: 4.2 - 4.6	pH: > 4.6 - 5.0	pH: > 5.0
< 0.88	NTCS food*	NTCS food	NTCS food	NTCS food
0.88 – 0.90	NTCS food	NTCS food	NTCS food	PA**
> 0.90 – 0.92	NTCS food	NTCS food	PA	PA
> 0.92	NTCS food	PA	PA	PA

\* TCS FOOD means TIME/TEMPERATURE CONTROL FOR SAFETY (TCS) FOOD

\*\* PA means Product Assessment required

**§228.31**

**§228.32 (3)(D)**

Subchapter B. Management and Personnel.

§228.31. Responsibility.

(a) Except as specified in subsection (b) of this section, the permit holder shall be the person in charge or shall designate a person in charge and shall ensure that a person in charge is present at the food establishment during all hours of operation. <sup>Pf</sup> [21]

(b) In a food establishment with two or more separately permitted departments that are the legal responsibility of the same permit holder that are located on the same premises, the permit holder may, during specific time periods when food is not being prepared, packaged, or served, designate a single person in charge who is present on the premises during all hours of operation, and who is responsible for each separate permitted food establishment on the premises. <sup>Pf</sup> [21]

§228.32. Knowledge.

Based on the risks inherent to the food operation, during inspections and upon request the person in charge shall demonstrate to the regulatory authority knowledge of foodborne disease prevention, application of the Hazard Analysis Critical Control Point principles, and the requirements of this rule. The person in charge shall demonstrate this knowledge by:

(1) complying with this chapter by having no priority items during the current inspection; <sup>Pf</sup> [21]

(2) being a certified food protection manager who has shown proficiency of required information through passing a test that is part of an Accredited Program; <sup>Pf</sup> [21] or

(3) responding correctly to the inspector's questions as they relate to the specific food operation. The areas of knowledge include:

(A) describing the relationship between the prevention of foodborne disease and the personal hygiene of a food employee; <sup>Pf</sup> [21]

(B) explaining the responsibility of the person in charge for preventing the transmission of foodborne disease by a food employee who has a disease or medical condition that may cause foodborne disease; <sup>Pf</sup> [21]

(C) describing the symptoms associated with the diseases that are transmissible through food; <sup>Pf</sup> [21]

(D) explaining the significance of the relationship between maintaining the time and temperature of time/temperature control for safety (TCS) Food and the prevention of foodborne illness; <sup>Pf</sup> [21]

**§228.32 (3)(E)**

(E) explaining the hazards involved in the consumption of raw or undercooked meat, poultry, eggs, and fish; <sup>Pf</sup> [21]

(F) stating the required food temperatures and times for safe cooking of Time/temperature Control For Safety (TCS) Food including meat, poultry, eggs, and fish; <sup>Pf</sup> [21]

(G) stating the required temperatures and times for the safe refrigerated storage, hot holding, cooling, and reheating of time/temperature control for safety (TCS) Food; <sup>Pf</sup> [21]

(H) describing the relationship between the prevention of foodborne illness and the management and control of the following:

(i) cross contamination; <sup>Pf</sup> [21]

(ii) hand contact with ready-to-eat foods; <sup>Pf</sup> [21]

(iii) handwashing; <sup>Pf</sup> [21] and

(iv) maintaining the food establishment in a clean condition and in good repair; <sup>Pf</sup> [21]

(I) describing foods identified as major food allergens and the symptoms that a major food allergen could cause in a sensitive individual who has an allergic reaction. <sup>Pf</sup> [21]

(J) explaining the relationship between food safety and providing equipment that is:

(i) sufficient in number and capacity; <sup>Pf</sup> [21] and

(ii) properly designed, constructed, located, installed, operated, maintained, and cleaned; <sup>Pf</sup> [21]

(K) explaining correct procedures for cleaning and sanitizing utensils and food-contact surfaces of equipment; <sup>Pf</sup> [21]

(L) identifying the source of water used and measures taken to ensure that it remains protected from contamination such as providing protection from backflow and precluding the creation of cross connections; <sup>Pf</sup> [21]

(M) identifying poisonous and toxic materials in the food establishment and the procedures necessary to ensure that they are safely stored, dispensed, used, and disposed of according to law; <sup>Pf</sup> [21]

**§228.32 (3)(N)**

**§228.33 (e)**

(N) identifying critical control points/priority items in the operation from purchasing through sale or service that when not controlled may contribute to the transmission of foodborne illness and explaining steps taken to ensure that the points are controlled in accordance with the requirements of this rule; <sup>Pf</sup> [21]

(O) explaining the details of how the person in charge and food employees comply with the HACCP plan if a plan is required by the law, these rules, or an agreement between the regulatory authority and the establishment; <sup>Pf</sup> [21]

(P) explaining the responsibilities, rights, and authorities assigned by these rules to the:

(i) food employee; <sup>Pf</sup> [21]

(ii) conditional employee; <sup>Pf</sup> [21]

(iii) person in charge; <sup>Pf</sup> [21]

(iv) regulatory authority; <sup>Pf</sup> [21] and

(Q) explaining how the person in charge, food employees comply with reporting responsibilities and exclusion or restriction of food employees. <sup>Pf</sup> [21]

**§228.33. Certified Food Protection Manager and Food Handler Requirements.**

(a) At least one employee that has supervisory and management responsibility and the authority to direct and control food preparation and service shall be a certified food protection manager who has shown proficiency of required information through passing a test that is part of an accredited program. <sup>Pf</sup> [21]

(b) The original food manager certificate shall be posted in a location in the food establishment that is conspicuous to consumers. [47]

(c) Except in a temporary food establishment, at least one certified food protection manager must be employed by each food establishment. <sup>Pf</sup> [21]

(d) Except in a temporary food establishment and the certified food manager, all food employees shall successfully complete an accredited food handler training course, within 60 days of employment. <sup>Pf</sup> [22]

(e) The food establishment shall maintain on premises a certificate of completion of the food handler training course for each food employee. The requirement to complete a food handler training course shall be effective September 1, 2016. [47]

**§228.33 (f)**

**§228.34 (7)**

(f) This section does not apply to certain types of food establishments deemed by the regulatory authority to pose minimal risk of causing, or contributing to, foodborne illnesses based on the nature of the operation and extent of food preparation.

§228.34 Duties.

The person in charge shall ensure that:

(1) food establishment operations are not conducted in a private home or in a room used as living or sleeping quarters as specified under Subchapter F of these rules (pertaining to Physical Facilities);<sup>Pf</sup> [21]

(2) persons unnecessary to the food establishment operation are not allowed in the food preparation, food storage, or warewashing areas, except that brief visits and tours may be authorized by the person in charge if steps are taken to ensure that exposed food; clean equipment, utensils, and linens; and unwrapped single-service and single-use articles are protected from contamination;<sup>Pf</sup> [21] [22]

(3) employees and other persons such as delivery and maintenance persons and pesticide applicators entering the food preparation, food storage, and warewashing areas comply with these rules;<sup>Pf</sup> [21] [22]

(4) employees are effectively cleaning their hands, by routinely monitoring the employees' handwashing;<sup>Pf</sup> [21]

(5) employees are visibly observing foods as they are received to determine that they are from approved sources, delivered at the required temperatures, protected from contamination, unadulterated, and accurately presented, by routinely monitoring the employees' observations and periodically evaluating foods upon their receipt;<sup>Pf</sup> [21]

(6) employees are verifying that foods delivered to the food establishment during non-operating hours are from approved sources and are placed into appropriate storage locations such that they are maintained at the required temperatures, protected from contamination, unadulterated and accurately presented;<sup>Pf</sup> [21]

(7) employees are properly cooking time/temperature control for safety (TCS) food, being particularly careful in cooking those foods known to cause severe foodborne illness and death, such as eggs and comminuted meats, through daily oversight of the employees' routine monitoring of the cooking temperatures using appropriate temperature measuring devices properly scaled and calibrated as specified under §228.105(a) and §228.112(a)(2) of this title (relating to Equipment, Utensils, and Linens);<sup>Pf</sup> [21]

**§228.34 (8)**

**§228.35 (a)(1)**

(8) employees are using proper methods to rapidly cool time/temperature control for safety (TCS) food, that are not held hot or are not for consumption within four hours, through daily oversight of the employees' routine monitoring of food temperatures during cooling; <sup>Pf</sup> [21]

(9) consumers who order raw or partially cooked ready-to-eat foods of animal origin are informed as specified under §228.80 of this title (relating to Food) that the food is not cooked sufficiently to ensure its safety; <sup>Pf</sup> [21]

(10) employees are properly sanitizing cleaned multiuse equipment and utensils before they are reused, through routine monitoring of solution temperature and exposure time for hot water sanitizing, and chemical concentration, pH, temperature, and exposure time for chemical sanitizing; <sup>Pf</sup> [21]

(11) consumers are notified that clean tableware is to be used when they return to self-service areas such as salad bars and buffets as specified under §228.68(f) of this title; <sup>Pf</sup> [21]

(12) except when otherwise approved as specified in §228.65(a)(4) of this title, employees are preventing cross-contamination of ready-to-eat food with bare hands by properly using suitable utensils such as deli tissue, spatulas, tongs, single-use gloves, or dispensing equipment; <sup>Pf</sup> [21]

(13) employees are properly trained in food safety including food allergy awareness as it relates to their assigned duties. <sup>Pf</sup> [21]

(14) food employees and conditional employees are informed in a verifiable manner of their responsibility to report in accordance with law, to the person in charge, information about their health and activities as they relate to diseases that are transmissible through food, as specified under §228.32(3)(P) of this title ;<sup>Pf</sup> [21] and

(15) written procedures and plans, where specified by these rules and as developed by the food establishment, are maintained and implemented as required. <sup>Pf</sup> [21]

**§228.35. Responsibilities and Reporting Symptoms and Diagnosis.**

(a) Responsibility of Permit Holder, Person in Charge, and Conditional Employees. The permit holder shall require food employees and conditional employees to report to the person in charge, information about their health and activities as they relate to diseases that are transmissible through food. A food employee or conditional employee shall report the information in a manner that allows the person in charge to reduce the risk of foodborne disease transmission, such as the date of onset of symptoms and an illness, or of a diagnosis-if the food employee or conditional employee:

(1) Has any of the following symptoms:



**§228.35 (a)(1)(A)**

**§228.35 (a)(4)**

(A) vomiting, <sup>P</sup> [12]

(B) diarrhea, <sup>P</sup> [12]

(C) jaundice, <sup>P</sup> [12]

(D) sore throat with fever; <sup>P</sup> [12] or

(E) a lesion containing pus such as a boil or infected wound that is open or draining and is:

(i) on the hands or wrists, unless an impermeable cover such as a finger cot or stall protects the lesion and a single-use glove is worn over the impermeable cover; <sup>P</sup> [12]

(ii) on exposed portions of the arms, unless the lesion is protected by an impermeable cover; <sup>P</sup> [12] or

(iii) on other parts of the body, unless the lesion is covered by a dry, durable, tight-fitting bandage; <sup>P</sup> [12]

(2) Has an illness diagnosed by a Health Practitioner due to:

(A) Norovirus; <sup>P</sup> [12]

(B) Hepatitis A virus; <sup>P</sup> [12]

(C) *Shigella* spp.; <sup>P</sup> [12]

(D) Shiga toxin-producing *Escherichia coli*; <sup>P</sup> [12]

(E) *Salmonella typhi*; <sup>P</sup> [12] or

(F) non-typhoidal *salmonella*. <sup>P</sup> [12]

(3) Had a previous illness, diagnosed by a Health Practitioner, within the past 3 months due to *Salmonella typhi*, without having received antibiotic therapy, as determined by a Health Practitioner; <sup>P</sup> [12]

(4) Has been exposed to, or is the suspected source of, a confirmed disease outbreak, because the food employee or conditional employee consumed or prepared food implicated in the outbreak, or consumed food at an event prepared by a person who is infected or ill with:

**§228.35 (a)(4)(A)**

**§228.35 (c)(2)**

(A) Norovirus within the past 48 hours of the last exposure, <sup>P</sup> [12]

(B) Shiga Toxin-Producing *Escherichia coli* or *Shigella* spp. within the past 3 days of the last exposure, <sup>P</sup> [12]

(C) *Salmonella typhi* within the past 14 days of the last exposure, <sup>P</sup> [12] or

(D) Hepatitis A virus within the past 30 days of the last exposure <sup>P</sup> [12]; or

(5) Has been exposed by attending or working in a setting where there is a confirmed disease outbreak, or living in the same household as, and has knowledge about, an individual who works or attends a setting where there is a confirmed disease outbreak, or living in the same household as, and has knowledge about, an individual diagnosed with an illness caused by:

(A) Norovirus within the past 48 hours of the last exposure, <sup>P</sup> [12]

(B) Shiga Toxin-Producing *Escherichia coli* or *Shigella* spp. within the past 3 days of the last exposure, <sup>P</sup> [12]

(C) *Salmonella typhi* within the past 14 days of the last exposure, <sup>P</sup> [12] or

(D) Hepatitis A virus within the past 30 days of the last exposure. <sup>P</sup> [12]

(b) The person in charge shall notify the regulatory authority when a food employee is:

(1) jaundiced; <sup>P</sup> [12] or

(2) diagnosed with an illness due to a pathogen as specified under subsection (a)(2)(A) - (F) of this section. <sup>P</sup> [12]

(c) The person in charge shall ensure that a conditional employee:

(1) who exhibits or reports a symptom, or who reports diagnosed illness as specified under subsection (a)(1) - (3) of this section, is prohibited from becoming a food employee until the conditional employee meets the criteria for the specific symptoms or diagnosed illness as specified under §228.37 of this title; <sup>P</sup> [12] and

(2) who will work as a food employee in a food establishment that serves as a highly susceptible population and reports a history of exposure as specified under subsection (a)(4) - (5), is prohibited from becoming a food employee until the conditional employee meets the criteria as specified under §228.37(10) of this title. <sup>P</sup> [12]

**§228.35 (d)**

**§228.36 (2)(A)**

(d) The person in charge shall ensure that a food employee who exhibits or reports a symptom, or who reports a diagnosed illness or a history of exposure as specified under subsection (a)(1) - (5) of this section is:

(1) excluded as specified under §228.36(1) - (3), and paragraphs (4)(A), (5)(A), (6)(A), (7) or (8)(A) and in compliance with the provisions specified under §228.37(1) - (8);<sup>P</sup> [12] or

(2) restricted as specified under §228.36(4)(B), (5)(B), (6)(B), (8)(B), or §228.37(9) or (10) and in compliance with the provisions specified under §228.37(4)-(10).<sup>P</sup> [12]

(e) A food employee or conditional employee shall report to the person in charge the information as specified under (a) of this section.<sup>P</sup> [12]

(f) A food employee shall:

(1) comply with an exclusion as specified under §228.36(1)-(3) and (4)(A), (5)(A), (6)(A), (7), or (8)(A) and with the provisions specified under §228.37(1) - (8);<sup>P</sup> [12] or

(2) comply with a restriction as specified under §228.36(4)(B), (5)(B), (6)(B), (7), (8)(B), or §228.36 (8), (9), or (10) and comply with the provisions specified under §228.37(4) - (10).<sup>P</sup> [12]

**§228.36. Conditions of Exclusions and Restrictions.**

The person in charge shall exclude or restrict a food employee from a food establishment in accordance with the following:

(1) Except when the symptom is from a noninfectious condition, exclude a food employee if the food employee is:

(A) symptomatic with vomiting or diarrhea;<sup>P</sup> [13] or

(B) symptomatic with vomiting or diarrhea and diagnosed with an infection from Norovirus, *Shigella* spp., non-typhoidal *salmonella*, or shiga toxin-producing *E. coli*.<sup>P</sup> [13]

(2) Exclude a food employee who is:

(A) jaundiced and the onset occurred within the last 7 calendar days, unless the food employee provides to the person in charge written medical documentation from a Health Practitioner specifying that the jaundice is not caused by hepatitis A virus or other fecal-orally transmitted infection;<sup>P</sup> [13]

**§228.36 (2)(B)**

**§228.36 (8)(A)**

(B) diagnosed with an infection from hepatitis A virus within 14 calendar days from the onset of any illness symptoms, or within 7 calendar days of the onset of jaundice or diagnosed with an infection from hepatitis A virus without developing symptoms. <sup>P</sup> [13]

(3) Exclude a food employee who is diagnosed with an infection from *salmonella* typhi, or reports a previous infection with *Salmonella* typhi within the past 3 months as specified under §228.35(a)(3) of this title. <sup>P</sup> [13]

(4) If a food employee is diagnosed with an infection from norovirus and is asymptomatic:

(A) exclude the food employee who works in a food establishment serving a highly susceptible population; <sup>P</sup> [13] or

(B) restrict the food employee who works in a food establishment not serving a highly susceptible population. <sup>P</sup> [13]

(5) If a food employee is diagnosed with an infection from *Shigella* spp. and is asymptomatic:

(A) exclude the food employee who works in a food establishment serving a highly susceptible population; <sup>P</sup> [13] or

(B) restrict the food employee who works in a food establishment not serving a highly susceptible population. <sup>P</sup> [13]

(6) If a food employee is diagnosed with an infection from shiga toxin-producing *E. coli*, and is asymptomatic:

(A) exclude the food employee who works in a food establishment serving a highly susceptible population; <sup>P</sup> [13] or

(B) restrict the food employee who works in a food establishment not serving a highly susceptible population. <sup>P</sup> [13]

(7) If a food employee is diagnosed with an infection from non-typhoidal *salmonella* and is asymptomatic, restrict the food employee who works in a food establishment serving a highly susceptible population or in a food establishment not serving a highly susceptible population. <sup>P</sup> [13]

(8) If a food employee is ill with symptoms of acute onset of sore throat with fever:

(A) exclude the food employee who works in a food establishment serving

**§228.36 (8)(A)**

**§228.37 (1)(B)(ii)**

a highly susceptible population; <sup>P</sup> [13] or

(B) restrict the food employee who works in a food establishment not serving a highly susceptible population. <sup>P</sup> [13]

(9) if a food employee is infected with a skin lesion containing pus such as a boil or infected wound that is open or draining and not properly covered as specified under §228.35(a)(1)(E), restrict the food employee. <sup>P</sup> [13]

(10) if a food employee is exposed to a foodborne pathogen as specified under sections §228.35(a)(4)(A-D) or (a)(5)(A-D), restrict the food employee who works in a food establishment serving a highly susceptible population. <sup>P</sup> [13]

**§228.37. Managing Exclusions and Restrictions.**

The person in charge shall adhere to the following conditions when removing, adjusting, or retaining the exclusion or restriction of a food employee:

(1) Except when a food employee is diagnosed with an infection from hepatitis A virus or *Salmonella typhi*:

(A) reinstate a food employee who was excluded as specified under section §228.36(1)(A) if the food employee:

(i) is asymptomatic for at least 24 hours; <sup>P</sup> [13] or

(ii) provides to the person in charge written medical documentation from a health practitioner that states the symptom is from a noninfectious condition. <sup>P</sup> [13]

(B) If a food employee was diagnosed with an infection from norovirus and excluded as specified under §228.36(1) (B):

(i) restrict the food employee, who is asymptomatic for at least 24 hours and works in a food establishment not serving a highly susceptible population, until the conditions for reinstatement as specified under paragraph (4)(A) or (B) of this section are met; <sup>P</sup> [13] or

(ii) retain the exclusion for the food employee, who is asymptomatic for at least 24 hours and works in a food establishment that serves a highly susceptible population, until the conditions for reinstatement as specified under paragraph (4)(A) or (B) of this section are met. <sup>P</sup> [13]

**§228.37 (1)(C)**

**§228.37 (2)(B)**

(C) If a food employee was diagnosed with an infection from *Shigella* spp. and excluded as specified under §228.36(1) (B):

(i) restrict the food employee, who is asymptomatic for at least 24 hours and works in a food establishment not serving a highly susceptible population, until the conditions for reinstatement as specified under subsection (5)(A) or (B) of this section are met; <sup>P</sup> [13] or

(ii) retain the exclusion for the food employee, who is asymptomatic for at least 24 hours and works in a food establishment that serves a highly susceptible population, until the conditions for reinstatement as specified under subsections (5)(A) or (B) , or (5)(A) and (C) of this section are met. <sup>P</sup> [13]

(D) If a food employee was diagnosed with an infection from shiga toxin-producing *Escherichia coli* and excluded as specified under §228.36(2):

(i) restrict the food employee, who is asymptomatic for at least 24 hours and works in a food establishment not serving a highly susceptible population, until the conditions for reinstatement as specified under subsections (6)(A) or (B) of this section are met; <sup>P</sup> [13] or

(ii) retain the exclusion for the food employee, who is asymptomatic for at least 24 hours and works in a food establishment that serves a highly susceptible population, until the conditions for reinstatement as specified under subsections (6)(A) or (B) are met. <sup>P</sup> [13]

(E) If a food employee was diagnosed with an infection from non-typhoidal *Salmonella* and excluded as specified under §228.36(2):

(i) restrict the food employee, who is asymptomatic for at least 30 days until conditions for reinstatement as specified under subsection (7)(A) or (B) of this section are met; <sup>P</sup> [13]

(ii) retain the exclusion for the food employee who is symptomatic, until conditions for reinstatement as specified under subsection (7)(A) or (B) of this section are met. <sup>P</sup> [13]

(2) reinstate a food employee who was excluded as specified under §228.36(2) if the person in charge obtains approval from the regulatory authority and one of the following conditions is met;

[13] (A) the food employee has been jaundiced for more than 7 calendar days;<sup>P</sup>

(B) the anicteric food employee has been symptomatic with symptoms

**§228.37 (2)(B)**

**§228.37 (5)(B)**

other than jaundice for more than 14 calendar days; <sup>P</sup> [13] or

(C) the food employee provides to the person in charge written medical documentation from a health practitioner stating that the food employee is free of a Hepatitis A virus infection. <sup>P</sup> [13]

(3) reinstate a food employee who was excluded as specified under §228.36(3) if:

(A) the person in charge obtains approval from the regulatory authority; <sup>P</sup> [13] and

(B) the food employee provides to the person in charge written medical documentation from a health practitioner that states the food employee is free from *S. typhi* infection. <sup>P</sup> [13]

(4) reinstate a food employee who was excluded as specified under §228.36(1)(B) or (4)(A) who was restricted under §228.36(4)(B) if the person in charge obtains approval from the regulatory authority and one of the following conditions is met:

(A) the excluded or restricted food employee provides to the person in charge written medical documentation from a health practitioner stating that the food employee is free of a norovirus infection; <sup>P</sup> [13]

(B) the food employee was excluded or restricted after symptoms of vomiting or diarrhea resolved, and more than 48 hours have passed since the food employee became asymptomatic; <sup>P</sup> [13] or

(C) the food employee was excluded or restricted and did not develop symptoms and more than 48 hours have passed since the food employee was diagnosed. <sup>P</sup> [13]

(5) reinstate a food employee who was excluded as specified under §228.36(2) or (5)(A) or who was restricted under section §228.36(5)(B) if the person in charge obtains approval from the regulatory authority and one of the following conditions is met:

(A) the excluded or restricted food employee provides to the person in charge written medical documentation from a health practitioner stating that the food employee is free of a *Shigella* spp. infection based on test results showing 2 consecutive negative stool specimen cultures that are taken:

(i) not earlier than 48 hours after discontinuance of antibiotics, <sup>P</sup> [13] and

(ii) at least 24 hours apart; <sup>P</sup> [13]

(B) the food employee was excluded or restricted after symptoms of

**§228.37 (5)(B)**

**§228.37 (7)(B)**

vomiting or diarrhea resolved, and more than 7 calendar days have passed since the food employee became asymptomatic; <sup>P</sup> [13] or

(C) the food employee was excluded or restricted and did not develop symptoms and more than 7 calendar days have passed since the food employee was diagnosed. <sup>P</sup> [13]

(6) reinstate a food employee who was excluded or restricted as specified under §228.36(2) or (6)(A) or who was restricted under §228.36(6)(B) if the person in charge obtains approval from the regulatory authority and one of the following conditions is met:

(A) the excluded or restricted food employee provides to the person in charge written medical documentation from a health practitioner stating that the food employee is free of an infection from shiga toxin-producing *Escherichia coli* based on test results that show 2 consecutive negative stool specimen cultures that are taken:

(i) not earlier than 48 hours after discontinuance of antibiotics; <sup>P</sup> [13] and

(ii) at least 24 hours apart; <sup>P</sup> [13]

(B) the food employee was excluded or restricted after symptoms of vomiting or diarrhea resolved and more than 7 calendar days have passed since the food employee became asymptomatic; <sup>P</sup> [13] or

(C) the food employee was excluded or restricted and did not develop symptoms and more than 7 days have passed since the food employee was diagnosed. <sup>P</sup> [13]

(7) reinstate a food employee who was excluded as specified under §228.36(2) or who was restricted as specified under §228.36(7) if the person in charge obtains approval from the regulatory authority <sup>P</sup> [13] and one of the following conditions is met:

(A) the excluded or restricted food employee provides to the person in charge written medical documentation from a health practitioner stating that the food employee is free of a non-typhoidal *salmonella* infection based on test results showing 2 consecutive negative stool specimen cultures that are taken:

(i) not earlier than 48 hours after discontinuance of antibiotics, <sup>P</sup> [13] and

(ii) at least 24 hours apart; <sup>P</sup> [13]

(B) the food employee was restricted after symptoms of vomiting or diarrhea resolved, and more than 30 days have passed since the food employee became



**§228.37 (7)(B)**

**§228.37 (10)(A)(ii)**

asymptomatic; <sup>P</sup> [13] or

(C) the food employee was excluded or restricted and did not develop symptoms and more than 30 days have passed since the food employee was diagnosed. <sup>P</sup> [13]

(8) reinstate a food employee who was excluded or restricted as specified under §228.36(8)(A) or (B) if the food employee provides to the person in charge written medical documentation from a health practitioner stating that the food employee meets one of the following conditions:

(A) has received antibiotic therapy for *Streptococcus pyogenes* infection for more than 24 hours; <sup>P</sup> [13]

(B) has at least one negative throat specimen culture for *Streptococcus pyogenes* infection; <sup>P</sup> [13] or

(C) is otherwise determined by a health practitioner to be free of a *Streptococcus pyogenes* infection. <sup>P</sup> [13]

(9) reinstate a food employee who was restricted as specified under §228.36(9) if the skin, infected wound, cut, or pustular boil is properly covered with one of the following:

(A) an impermeable cover such as a finger cot or stall and a single-use glove over the impermeable cover if the infected wound or pustular boil is on the hand, finger, or wrist; <sup>P</sup> [13]

(B) an impermeable cover on the arm if the infected wound or pustular boil is on the arm; <sup>P</sup> [13] or

(C) a dry, durable, tight-fitting bandage if the infected wound or pustular boil is on another part of the body. <sup>P</sup> [13]

(10) reinstate a food employee who was restricted as specified under §228.36(10) and was exposed to one of the following pathogens as specified under §228.35(a)(4)(A-D) or §228.35 (a)(5)(A-D):

(A) norovirus and one of the following conditions is met:

(i) more than 48 hours have passed since the last day the food employee was potentially exposed; <sup>P</sup> [13] or

(ii) more than 48 hours have passed since the food employee's household contact became asymptomatic. <sup>P</sup> [13]

**§228.37 (10)(B)**

**§228.37 (10)(D)(vi)(II)**

(B) *Shigella* spp. or shiga toxin-producing *Escherichia coli* and one of the following conditions is met:

(i) more than 3 calendar days have passed since the last day the food employee was potentially exposed; <sup>P</sup> [13] or

(ii) more than 3 calendar days have passed since the food employee's household contact became asymptomatic. <sup>P</sup> [13]

(C) *S. typhi* and one of the following conditions is met:

(i) more than 14 calendar days have passed since the last day the food employee was potentially exposed; <sup>P</sup> [13] or

(ii) more than 14 calendar days have passed since the food employee's household contact became asymptomatic. <sup>P</sup> [13]

(D) Hepatitis A virus and one of the following conditions is met:

(i) the food employee is immune to hepatitis A virus infection because of a prior illness from hepatitis A; <sup>P</sup> [13]

(ii) the food employee is immune to hepatitis A virus infection because of vaccination against hepatitis A; <sup>P</sup> [13]

(iii) the food employee is immune to hepatitis A virus infection because of IgG administration; <sup>P</sup> [13]

(iv) more than 30 calendar days have passed since the last day the food employee was potentially exposed; <sup>P</sup> [13]

(v) more than 30 calendar days have passed since the food employee's household contact became jaundiced; <sup>P</sup> [13] or

(vi) the food employee does not use an alternative procedure that allows bare hand contact with ready-to-eat food until at least 30 days after the potential exposure, as specified in subsection (10)(D)(iv) and (v) of this section, and the food employee receives additional training about:

(I) Hepatitis A symptoms and preventing the transmission of infection, <sup>P</sup> [13]

(II) proper handwashing procedures, <sup>P</sup> [13] and

**§228.37 (10)(D)(vi)(III)**

**§228.38 (b)(3)**

(III) protecting ready-to-eat food from contamination introduced by bare hand contact. <sup>P</sup> [13]

§228.38. Hands and Arms.

(a) Clean Condition. Food employees shall keep their hands and exposed portions of their arms clean. <sup>P</sup> [14]

(b) Cleaning Procedure.

(1) except as specified in subsection (d) of this section, food employees shall clean their hands and exposed portions of their arms, including surrogate prosthetic devices for hands or arms for at least 20 seconds, using a cleaning compound in a handwashing sink that is equipped as specified under §228.146 and §228.175. <sup>P</sup> [14]

(2) food employees shall use the following cleaning procedure in the order stated to clean their hands and exposed portions of their arms, including surrogate prosthetic devices for hands and arms:

(A) rinse under clean, running warm water; <sup>P</sup> [14]

(B) apply an amount of cleaning compound recommended by the cleaning compound manufacturer; <sup>P</sup> [14]

(C) rub together vigorously for at least 10 to 15 seconds while:

(i) paying particular attention to removing soil from underneath the fingernails during the cleaning procedure, <sup>P</sup> [14] and

(ii) creating friction on the surfaces of the hands and arms or surrogate prosthetic devices for hands and arms, finger tips, and areas between the fingers; <sup>P</sup> [14]

(D) thoroughly rinse under clean, running warm water; <sup>P</sup> [14] and

(E) immediately follow the cleaning procedure with thorough drying using a method as specified under §228.175(c). <sup>P</sup> [14]

(3) to avoid re-contaminating their hands or surrogate prosthetic devices, food employees may use disposable paper towels or similar clean barriers when touching surfaces such as manually operated faucet handles on a handwashing sink or the handle of a restroom door. <sup>Pf</sup> [31]

**§228.38 (b)(4)**

**§228.38 (e)**

(4) if approved and capable of removing the types of soils encountered in the food operations involved, an automatic handwashing facility may be used by food employees to clean their hands or surrogate prosthetic devices. <sup>Pf</sup> [31]

(c) Special Handwash Procedures. Employees not utilizing suitable utensils or single-use gloves when handling ready-to-eat foods shall wash hands using the cleaning procedures specified in subsection (b)(2) of this section and follow the approved procedures specified in §228.65(a)(5) of this title.

(d) When to Wash. Food employees shall clean their hands and exposed portions of their arms as specified under subsection (b) immediately before engaging in food preparation including working with exposed food, clean equipment and utensils, and unwrapped single-service and single-use articles <sup>P</sup> [14] and:

(1) after touching bare human body parts other than clean hands and clean, exposed portions of arms; <sup>P</sup> [14]

(2) after using the toilet room; <sup>P</sup> [14]

(3) after caring for or handling service animals or aquatic animals as specified in §228.44(2); <sup>P</sup> [14]

(4) except as specified in §228.42(b) after coughing, sneezing, using a handkerchief or disposable tissue, using tobacco, eating, or drinking; <sup>P</sup> [14]

(5) after handling soiled equipment or utensils; <sup>P</sup> [14]

(6) during food preparation, as often as necessary to remove soil and contamination and to prevent cross contamination when changing tasks; <sup>P</sup> [14]

(7) when switching between working with raw food and working with ready-to-eat food; <sup>P</sup> [14]

(8) before donning gloves to initiate a task that involves working with food; <sup>P</sup> [14]  
and

(9) after engaging in other activities that contaminate the hands. <sup>P</sup> [14]

(e) Where to Wash. Food employees shall clean their hands in a handwashing sink or approved automatic handwashing facility and may not clean their hands in a sink used for food preparation or warewashing or in a service sink or a curbed cleaning facility used for the disposal of mop water and similar liquid waste. <sup>Pf</sup> [22]

**228.38 (f)**

**§228.38 (f)(2)**

(f) Hand Antiseptics.

(1) a hand antiseptic used as a topical application, a hand antiseptic solution used as a hand dip, or a hand antiseptic soap shall:

(A) comply with one of the following:

(i) be an approved drug that is listed in the FDA publication Approved Drug Products With Therapeutic Equivalence Evaluations as an approved drug based on safety and effectiveness; <sup>Pf</sup> [31] or

(ii) have active antimicrobial ingredients that are listed in the FDA monograph for OTC health-care antiseptic drug products as an antiseptic handwash, <sup>Pf</sup> [31] and

(B) consist only of components which the intended use of each complies with one of the following:

(i) a threshold of regulation exemption under 21 CFR 170.39 - threshold of regulation for substances used in food-contact articles; <sup>Pf</sup> [31] or

(ii) 21 CFR 178 - indirect food additives: adjuvants, production aids, and sanitizers as regulated for use as a food additive with conditions of safe use, <sup>Pf</sup> [31] or

(iii) a determination of generally recognized as safe (GRAS). partial listings of substances with food uses that are GRAS may be found in 21 CFR 182 – substances generally recognized as safe, 21 CFR 184 - direct food substances affirmed as generally recognized as safe, or 21 CFR 186 – indirect food substances affirmed as generally recognized as safe for use in contact with food, and in FDA’s Inventory of GRAS Notices, <sup>Pf</sup> [31] or

(iv) a prior sanction listed under 21 CFR 181 – prior sanctioned food ingredients, <sup>Pf</sup> [31] or

(v) a Food Contact Notification that is effective, <sup>Pf</sup> [31] and

(C) be applied only to hands that are cleaned as specified under §228.38(b). <sup>Pf</sup> [31]

(2) if a hand antiseptic or a hand antiseptic solution used as a hand dip does not meet the criteria specified under paragraph (1)(B) of this subsection, use shall be:

**§228.38 (f)(2)(A)**

**§228.42 (a)(2)(c)**

(A) followed by thorough hand rinsing in clean water before hand contact with food or by the use of gloves; <sup>Pf</sup> [31] or

(B) limited to situations that involve no direct contact with food by the bare hands. <sup>Pf</sup> [31]

(3) a hand antiseptic solution used as a hand dip shall be maintained clean and at a strength equivalent to at least 100 mg/L chlorine. <sup>Pf</sup> [31]

§228.39. Fingernail Maintenance.

(a) Food employees shall keep their fingernails trimmed, filed, and maintained so the edges and surfaces are cleanable and not rough. <sup>Pf</sup> [22]

(b) Unless wearing intact gloves in good repair, a food employee may not wear fingernail polish or artificial fingernails when working with exposed food. <sup>Pf</sup> [22]

§228.40. Jewelry Prohibition. Except for a plain ring such as a wedding band, while preparing food, food employees may not wear jewelry including medical information jewelry on their arms and hands. [35]

§228.41. Outer Clothing, Clean Condition. Food employees shall wear clean outer clothing to prevent contamination of food, equipment, utensils, linens, and single- service and single-use articles. [35]

§228.42. Food Contamination Prevention.

(a) Eating, Drinking, or Using Tobacco.

(1) except as specified in paragraph (2) of this subsection, an employee shall eat, drink, or use any form of tobacco only in designated areas where the contamination of exposed food; clean equipment, utensils, and linens; unwrapped single-service and single-use articles; or other items needing protection cannot result. [35]

(2) a food employee may drink from a closed beverage container if the container is handled to prevent contamination of:

(A) the employee's hands;

(B) the container; and

(C) exposed food; clean equipment, utensils, and linens; and unwrapped single-service and single-use articles.

**§228.42 (b)**

**§228.62 (a)**

(b) Discharges from the Eyes, Nose, and Mouth. Food employees experiencing persistent sneezing, coughing, or a runny nose that causes discharges from the eyes, nose, or mouth may not work with exposed food; clean equipment, utensils, and linens; or unwrapped single-service or single-use articles. <sup>P</sup> [13]

§228.43. Hair Restraints.

(a) Except as provided in subsection (b) of this section, food employees shall wear hair restraints such as hats, hair coverings or nets, beard restraints, and clothing that covers body hair, that are designed and worn to effectively keep their hair from contacting exposed food; clean equipment, utensils, and linens; and unwrapped single-service and single-use articles. [35]

(b) This section does not apply to food employees such as counter staff who only serve beverages and wrapped or packaged foods, hostesses, and wait staff if they present a minimal risk of contaminating exposed food; clean equipment, utensils, and linens; and unwrapped single-service and single-use articles.

§228.44. Animals, Handling Prohibitions.

(a) Except as specified in subsection (b) of this section, food employees may not care for or handle animals that may be present such as patrol dogs, service animals, or pets that are allowed as specified in §228.186(o)(2)(B)-(E) of this title. <sup>Pf</sup> [22]

(b) Food employees with service animals may handle or care for their service animals and food employees may handle or care for fish in aquariums or molluscan shellfish or crustacea in display tanks if they wash their hands as specified under §228.38(b) and (d)(3) of this title. [35]

§228.45. Contamination Events.

Clean-up of Vomit and Diarrheal Events. A food establishment shall have written procedures for employees to follow when responding to vomiting or diarrheal events that involve the discharge of vomitus or fecal matter onto surfaces in the food establishment the procedures shall address the specific actions employees must take to minimize the spread of contamination and the exposure of employees, consumers, food, and surfaces to vomitus or fecal matter. <sup>Pf</sup> [21]

Subchapter C. Food.

§228.61. Condition Safe, Unadulterated, and Honestly Presented. Food shall be safe, unadulterated, and, as specified under §228.78(b) of this title, honestly presented. <sup>P</sup> [7]

§228.62. Approved Sources.

(a) Compliance with food law.

**§228.62 (a)(1)**

**§228.62 (a)(5)(C)(iii)**

(1) Food shall be obtained from sources that comply with applicable laws and are licensed by the state regulatory authority having jurisdiction over the processing and distribution of the food. <sup>P</sup> [7]

(2) Food prepared in a private home, except as allowed in §228.223 of this title, or from an unlicensed food manufacturer or wholesaler, is considered to be from an unapproved source and may not be used or offered for human consumption in a food establishment. <sup>P</sup> [7]

(3) Packaged food shall be labeled as specified in law, including 21 CFR 101, Food Labeling, 9 CFR 317, Labeling, Marking Devices, and Containers, and 9 CFR 381 Subpart N, Labeling and Containers, and as specified under §228.63(h) and (i) of this title. <sup>P</sup> [7]

(4) Fish, other than those specified in §228.72(a)(2) of this title, that are intended for consumption in their raw form and allowed as specified under §228.71(a)(4) of this title may be offered for sale or service if they are obtained from a supplier that freezes the fish as specified under section §228.72(a)(1) of this title; or frozen on the premises as specified under §228.72(a)(1) of this title and records are retained as specified under §228.72(b) of this subchapter. [41]

(5) Whole-muscle, intact beef steaks that are intended for consumption in an undercooked form without a consumer advisory as specified in section §228.71(a)(3) of this title shall be:

(A) obtained from a food processing plant that, upon request by the purchaser, packages the steaks and labels them, to indicate that the steaks meet the definition of whole-muscle, intact beef; <sup>Pf</sup> [26] or

(B) deemed acceptable by the regulatory authority based on other evidence, such as written buyer specifications or invoices, that indicates that the steaks meet the definition of whole-muscle, intact beef; <sup>Pf</sup> [26] and

(C) if individually cut in a food establishment:

(i) cut from whole-muscle intact beef that is labeled by a food processing plant as specified in subparagraph (A) of this paragraph or identified as specified in subparagraph (B) of this paragraph; <sup>Pf</sup> [26]

(ii) prepared so they remain intact; <sup>Pf</sup> [26] and

(iii) if packaged for undercooking in a food establishment, labeled as specified in subparagraph (A) of this paragraph or identified as specified in subparagraph (B) of this paragraph. <sup>Pf</sup> [26]



**§228.62 (a)(6)**

**§228.62 (f)(2)**

(6) Meat and poultry that is not a ready-to-eat food and is in a packaged form when it is offered for sale or otherwise offered for consumption, shall be labeled to include safe handling instructions as specified in law, including 9 CFR §317.2(l) and 9 CFR §381.125(b). [41]

(7) Eggs that have not been specifically treated to destroy all viable Salmonellae shall be labeled to include safe handling instructions as specified in law, including 21 CFR §101.17(h). [41]

(b) Food in a hermetically sealed container. Food in a hermetically sealed container shall be obtained from a food processing plant that is regulated by the food regulatory agency that has jurisdiction over the plant. <sup>P</sup> [7]

(c) Fluid milk and milk products. Fluid milk and milk products shall be obtained from sources that comply with Grade A standards in accordance with 25 TAC, §217.24. <sup>P</sup> [7]

(d) Fish.

(1) Fish that are received for sale or service shall be:

(A) commercially and legally caught or harvested; <sup>P</sup> [7] or

(B) approved for sale or service. <sup>P</sup> [7]

(2) Molluscan shellfish that are recreationally caught may not be received for sale or service. <sup>P</sup> [7]

(e) Molluscan shellfish.

(1) Molluscan shellfish shall be obtained from sources according to law and the requirements specified in the U.S. Department of Health and Human Services, Public Health Service, Food and Drug Administration, National Shellfish Sanitation Program Guide for the Control of Molluscan Shellfish. <sup>P</sup> [7]

(2) Molluscan shellfish received in interstate commerce shall be from sources that are listed in the Interstate Certified Shellfish Shippers List. <sup>P</sup> [7]

(f) Wild mushrooms.

(1) Except as specified in paragraph (2) of this subsection, mushroom species picked in the wild shall not be offered for sale or service by a food establishment unless the food establishment has been approved to do so. <sup>P</sup> [7]

(2) This section does not apply to:

**§228.62 (f)(2)(B)**

**§228.62 (g)(2)(A)(ii)**

(A) cultivated wild mushroom species that are grown, harvested, and processed in an operation that is regulated by the food regulatory agency that has jurisdiction over the operation; or

(B) wild mushroom species if they are in packaged form and are the product of a food processing plant that is regulated by the food regulatory agency that has jurisdiction over the plant.

(g) Exotic animals and game animals.

(1) If exotic animals are received for sale or service, they shall:

(A) be commercially raised for food <sup>P</sup> [7] and;

(i) raised, slaughtered, processed, and deemed to be “inspected and approved” under an inspection program administered by USDA in accordance with 9 CFR 352, Exotic Animals; Voluntary Inspection; <sup>P</sup> [7] or

(ii) raised, slaughtered, processed, and deemed to be “inspected and passed” under a meat and poultry inspection program administered by the department or any other state meat inspection program deemed equal to USDA inspection; <sup>P</sup> [7]

(B) as allowed by law, for exotic animals that are live caught, be slaughtered and processed as required in paragraph (1)(A)(i) or (ii) of this subsection; <sup>P</sup> [7] and

(C) as allowed by law, for exotic animals that are field dressed:

(i) receive an antemortem and postmortem examination by the appropriate inspection personnel as described in paragraph (1)(A)(i) or (ii) of this subsection; <sup>P</sup> [7] and

(ii) be field dressed, transported, and processed according to the requirements specified by the appropriate regulatory authority as described in paragraph (1)(A)(i) or (ii) of this subsection. <sup>P</sup> [7]

(2) If game animals are received for sale or service they shall be:

(A) commercially raised for food <sup>P</sup> [7] and:

(i) raised, slaughtered, and processed under a voluntary inspection program that is conducted by the agency that has animal health jurisdiction; <sup>P</sup> [7] or

(ii) under a routine inspection program conducted by a regulatory agency other than the agency that has animal health jurisdiction; <sup>P</sup> [7] and

**§228.62 (g)(2)(A)(iii)**

**§228.62 (g)(2)(D)(ii)**

(iii) raised, slaughtered, and processed according to:

(I) laws governing meat and poultry as determined by the agency that has animal health jurisdiction and the agency that conducts the inspection program;<sup>P</sup> [7] and

(II) requirements which are developed by the agency that has animal health jurisdiction and the agency that conducts the inspection program with consideration of factors such as the need for ante mortem and postmortem examination by an approved veterinarian or veterinarian's designee;<sup>P</sup> [7]

(B) under a voluntary inspection program administered by the USDA for game animals such as exotic animals (reindeer, elk, deer, antelope, water buffalo, or bison) that are "inspected and approved" in accordance with 9 CFR 352, Exotic Animals; Voluntary Inspection or rabbits that are "inspected and certified" in accordance with 9 CFR 354, Voluntary Inspection of Rabbits and Edible Products Thereof;<sup>P</sup> [7]

(C) as allowed by law, for wild game animals that are live-caught:

(i) under a routine inspection program conducted by a regulatory agency such as the agency that has animal health jurisdiction;<sup>P</sup> [7] and

(ii) slaughtered and processed according to:

(I) laws governing meat and poultry as determined by the agency that has animal health jurisdiction and the agency that conducts the inspection program;<sup>P</sup> [7] and

(II) requirements which are developed by the agency that has animal health jurisdiction and the agency that conducts the inspection program with

consideration of factors such as the need for antemortem and postmortem examination by an approved veterinarian or veterinarian's designee;<sup>P</sup> [7] or

(D) as allowed by law, for field-dressed wild game animals under a routine inspection program that ensures the animals:

(i) receive a postmortem examination by an approved veterinarian or veterinarian's designee;<sup>P</sup> [7] or

(ii) are field-dressed and transported according to requirements specified by the agency that has animal health jurisdiction and the agency that conducts the inspection program;<sup>P</sup> [7] and

**§228.62 (g)(2)(D)(iii)**

**§228.63 (b)**

(iii) are processed according to laws governing meat and poultry as determined by the agency that has animal health jurisdiction and the agency that conducts the inspection program. <sup>P</sup> [7]

(3) A game animal may not be received for sale or service if it is a species of wildlife that is listed in 50 CFR 17, Endangered and Threatened Wildlife and Plants.

**§228.63. Specifications for Receiving.**

**(a) Temperature.**

(1) Except as specified in paragraph (2) of this subsection, refrigerated, time/temperature controlled for safety food shall be at a temperature of 5 degrees Celsius (41 degrees Fahrenheit) or below when received. <sup>P</sup> [8]

(2) If a temperature other than 5 degrees Celsius (41 degrees Fahrenheit) for a time/temperature controlled for safety (TCS) food is specified in law governing its distribution the food may be received at the specified temperature.

(3) Raw shell eggs shall be received in refrigerated equipment that maintains an ambient air temperature of 7 degrees Celsius (45 degrees Fahrenheit) or less. <sup>P</sup> [8]

(4) Grade A Milk shall be received in refrigerated equipment that maintains an ambient air temperature of 7 degrees Celsius (45 degrees Fahrenheit) or less. Texas Milk and Dairy Rules, 25 TAC §217.28(1). <sup>P</sup> [8]

(5) Molluscan shellfish shall be received in refrigerated equipment or on ice that maintains a temperature of 7 degrees Celsius (45 degrees Fahrenheit) or less. Texas Molluscan Shellfish Rules, 25 TAC §241.61(a). <sup>P</sup> [8]

(6) Time/temperature controlled for safety (TCS) food that is cooked to a temperature and for a time specified under section §228.71 of this subchapter and received hot shall be at a temperature of 57 degrees Celsius (135 degrees Fahrenheit) or above. <sup>P</sup> [8]

(7) A food that is labeled frozen and shipped frozen by a food processing plant shall be received frozen. <sup>P</sup> [8]

(8) Upon receipt, time/temperature control for safety food shall be free of evidence of previous temperature abuse, such as but not limited to odors, ice crystals, frost or discoloration. <sup>P</sup> [8]

(b) Additives. Food may not contain unapproved food additives or additives that exceed amounts specified in 21 CFR 170-180 relating to food additives, generally recognized as safe or prior sanctioned substances that exceed amounts specified in 21 CFR 181-186, substances that

**§228.63 (b)**

**§228.63 (h)**

exceed amounts specified in 9 CFR Subpart C, §424.21(b), food ingredients and sources of radiation, or pesticide residues that exceed provisions specified in 40 CFR 180, Tolerances and Exemptions From Tolerances for Pesticide Chemicals in Food. <sup>P</sup> [17]

(c) Eggs. Eggs shall be received clean and sound and may not exceed the restricted egg tolerances for U.S. Consumer Grade B as specified in 7 CFR 56, Voluntary Grading of Shell Eggs and United States Standards, Grades, and Weight Classes for Shell Eggs, and 9 CFR 590, Inspection of Eggs and Egg Products. <sup>P</sup> [7]

(d) Eggs and milk products, pasteurized.

(1) Egg products shall be obtained pasteurized. <sup>P</sup> [7]

(2) Fluid and dry milk and milk products shall:

(A) be obtained pasteurized; <sup>P</sup> [7] and

(B) comply with grade A standards as specified in law. <sup>P</sup> [7]

(3) Frozen milk products, such as ice cream, shall be obtained pasteurized in accordance with the Texas Frozen Desserts Manufacturing Licensing Act, Health and Safety Code, Chapter 440. <sup>P</sup> [7]

(4) Cheese shall be obtained pasteurized unless alternative procedures to pasteurization are specified in the CFR, such as 21 CFR 133, Cheeses and Related Cheese Products, for curing certain cheese varieties. <sup>P</sup> [7]

(e) Package integrity. Food packages shall be in good condition and protect the integrity of the contents so that the food is not exposed to adulteration or potential contaminants. <sup>Pf</sup> [32]

(f) Ice. Ice for use as a food or a cooling medium shall be made from drinking water. <sup>P</sup> [7]

(g) Juice treated. Pre-packaged juice shall:

(1) be obtained from a processor with a HACCP system as specified in 21 CFR 120 Hazard Analysis and Critical Control (HACCP) Systems; <sup>P</sup> [7]

(2) be obtained pasteurized or otherwise treated to attain a 5-log reduction of the most resistant microorganism of public health significance as specified in 21 CFR §120.24 Process Controls. <sup>P</sup> [7]

(h) Shucked shellfish, packaging and identification.

**§228.63 (h)(1)**

**§228.63 (i)(1)(B)**

(1) Raw shucked shellfish, including individual quick frozen oysters, shall be obtained in nonreturnable packages which bear a legible label that identifies the: <sup>Pf</sup> [24]

(A) name, address, and certification number of the shucker-packer or repacker of the molluscan shellfish; <sup>Pf</sup> [24] and

(B) the “sell by” or “best if used by” date for packages with a capacity of less than 1.89 L (one-half gallon) or the date shucked for packages with a capacity of 1.89 L (one-half gallon) or more. <sup>Pf</sup> [24]

(2) A package of raw shucked shellfish that does not bear a label or which bears a label which does not contain all the information as specified under paragraph (1) of this subsection, shall be subject to detention as provided in Health and Safety Code, Chapter 436. [41]

(i) Shellstock identification.

(1) Shellstock shall be obtained in containers bearing legible source identification tags or labels that are affixed by the harvester and each dealer that depurates, ships, or reships the shellstock, as specified in the Texas Molluscan Shellfish Rules, 25 TAC §§241.50 - 241.71, and that list: <sup>Pf</sup> [24]

(A) except as specified under paragraph (3) of this subsection, on the harvester's tag or label, the following information in the following order: <sup>Pf</sup> [24]

(i) the harvester's identification number that is assigned by the shellfish control authority; <sup>Pf</sup> [24]

(ii) the date of harvesting; <sup>Pf</sup> [24]

(iii) the most precise identification of the harvest location or aquaculture site that is practicable based on the system of harvest area designations that is in use by the shellfish control authority and including the abbreviation of the name of the state or country in which the shellfish are harvested; <sup>Pf</sup> [24]

(iv) the type and quantity of shellfish; <sup>Pf</sup> [24] and

(v) the following statement in bold, capitalized type: “THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY OR RETAGGED AND THEREAFTER KEPT ON FILE FOR 90 DAYS”; <sup>Pf</sup> [24] and

(B) except as specified in paragraph (3) of this subsection, on each dealer's tag or label, the following information in the following order: <sup>Pf</sup> [24]

**§228.63 (i)(1)(B)(i)**

**§228.64 (b)(2)**

(i) the dealer's name and address, and the certification number assigned by the shellfish control authority; <sup>Pf</sup> [24]

(ii) the original shipper's certification number including the abbreviation of the name of the state or country in which the shellfish are harvested; <sup>Pf</sup> [24]

(iii) the same information as specified for a harvester's tag under subparagraph (A)(ii)-(iv) of this paragraph; <sup>Pf</sup> [24]

(iv) the following statement in bold, capitalized type: "THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY AND THEREAFTER KEPT ON FILE FOR 90 DAYS". <sup>Pf</sup> [24]

(2) A container of shellstock that does not bear a tag or label or that bears a tag or label that does not contain all the information as specified under paragraph (1) of this subsection shall be subject to detention as provided in Health and Safety Code, Chapter 436. [41]

(3) If a place is provided on the harvester's tag or label for a dealer's name, address, and certification number, the dealer's information shall be listed first.

(4) If the harvester's tag or label is designed to accommodate each dealer's identification as specified under paragraph (1)(B)(i) and (ii) of this subsection individual dealer tags or labels need not be provided.

(j) Shellstock, condition. When received by a food establishment, shellstock shall be reasonably free of mud, dead shellfish, and shellfish with broken shells. Dead shellfish or shellstock with badly broken shells shall be discarded. [37]

§228.64. Molluscan Shellfish, Original Container and Records.

(a) Except as specified in subsections (b) - (d) of this section, molluscan shellfish may not be removed from the container in which they are received other than immediately before sale or preparation for service. [41]

(b) For display purposes, shellstock may be removed from the container in which they are received, displayed on drained ice, or held in a display container maintained at 41 degrees Fahrenheit, and a quantity specified by a consumer may be removed from the display or display container and provided to the consumer if: [41]

(1) the source of the shellstock on display is identified as specified under sections §228.63(i) and §228.64(e) of this title; [41] and

(2) the shellstock are protected from contamination. [41]

**§228.64 (c)**

**§228.64 (e)(3)(B)**

(c) Shucked shellfish may be removed from the container in which they were received and held in a display container from which individual servings are dispensed upon a consumer's request if: [41]

(1) the labeling information for the shellfish on display as specified under §228.63(h) of this title is retained and correlated to the date when, or dates during which, the shellfish are sold or served; [41] and

(2) the shellfish are protected from contamination. [41]

(d) Shucked shellfish may be removed from the container in which they were received and repacked in consumer self-service containers where allowed by law if: [41]

(1) the labeling information for the shellfish is on each container as specified under §228.63(h) and §228.79(a)(1) and (2)(A) - (E) of this title; [41] and

(2) the labeling information as specified under subsection §228.63(h) of this title is retained which correlates with the date when, or dates during which, the shellfish are sold or served; [41]

(3) the labeling information and dates specified under subsection (d)(2) of this section are maintained for 90 days; [41] and

(4) the shellfish are protected from contamination. [41]

(e) Shellstock, maintaining identification.

(1) Except as specified under paragraph (3)(B) of this subsection, shellstock tags shall remain attached to the container in which the shellstock are received until the container is empty. <sup>Pf</sup> [24]

(2) The date when the last shellstock from the container is sold or served shall be recorded on the tag or label. <sup>Pf</sup> [24]

(3) The identity of the source of shellstock that are sold or served shall be maintained by retaining shellstock tags or labels for 90 calendar days from the date that is recorded on the tag or label, as specified under paragraph (2) of this subsection, by: <sup>Pf</sup> [24]

(A) using an approved record keeping system that keeps the tags or labels in chronological order correlated to the date that is recorded on the tag or label, as specified under paragraph (2) of this subsection; <sup>Pf</sup> [24] and

(B) if shellstock are removed from their tagged or labeled container:



**§228.64 (e)(3)(B)(i)**

**§228.65 (a)(5)(B)**

(i) preserving source identification by using a record keeping system as specified under paragraph (3)(A) of this subsection; <sup>Pf</sup> [24] and

(ii) ensuring that shellstock from one tagged or labeled container are not commingled with shellstock from another container with different certification numbers; different harvest dates; or different growing areas as identified on the tag or label before being ordered by the consumer. <sup>Pf</sup> [24]

§228.65. Preventing Contamination by Employees.

(a) Preventing contamination from hands.

(1) Food employees shall wash their hands as specified under §228.38 of this title (relating to Management and Personnel).

(2) Except when washing fruits and vegetables as specified under section §228.66(f) of this title or as specified in paragraphs (4) and (5) of this subsection, food employees may not contact exposed, ready-to-eat food with their bare hands and shall use suitable utensils such as deli tissue, spatulas, tongs, single-use gloves, or dispensing equipment. <sup>P</sup> [15]

(3) Food employees shall minimize bare hand and arm contact with exposed food that is not in a ready-to-eat form. <sup>P</sup> [15]

(4) paragraph (2) of this section does not apply to a food employee that contacts exposed, ready-to-eat food with bare hands at the time the ready-to-eat food is being added as an ingredient to a food that:

(A) contains a raw animal food and is to be cooked in the food establishment to heat all parts of the food to the minimum temperatures specified in §228.71(a)(1)-(2) or (b) of this title; or

(B) does not contain a raw animal food but is to be cooked in the food establishment to heat all parts of the food to a temperature of at least 63 degrees Celsius (145 degrees Fahrenheit).

(5) Food employees not serving a highly susceptible population may contact exposed, ready-to-eat food with their bare hands if:

(A) the permit holder has obtained approval from the regulatory authority and maintains proof of the approval at the facility for review during inspection. <sup>P</sup> [15]

(B) written procedures are maintained in the food establishment and made available to the regulatory authority upon request that include for each bare hand contact

**§228.65 (a)(5)(B)**

**§228.65 (a)(5)(D)(vii)**

procedure, a listing of the specific ready-to-eat foods and food additives that are touched by bare hands, <sup>P</sup> [15]

(C) a written employee health policy that details how the food establishment complies with §§228.35, 228.36, and 228.37 of this title including: <sup>P</sup> [15]

(i) documentation that food employees and conditional employees acknowledge that they are informed to report information about their health and activities as they relate to gastrointestinal symptoms and diseases that are transmittable through food as specified under §228.35(a) of this title; <sup>P</sup> [15]

(ii) documentation that food employees and conditional employees acknowledge their responsibilities as specified under §228.35(e) and (f) of this title; <sup>P</sup> [15] and

(iii) documentation that the person in charge acknowledges the responsibilities as specified under §228.35(b), (c) and (d), and §228.36 and §228.37 of this title; <sup>P</sup> [15]

(D) documentation is maintained at the food establishment that food employees acknowledge that they have received training in:

(i) the risks of contacting the specific ready-to-eat foods with bare hands; <sup>P</sup> [15]

(ii) proper handwashing as specified under §228.38 of this title; <sup>P</sup> [15]

(iii) when to wash their hands as specified under §228.38(d) of this title; <sup>P</sup> [15]

(iv) where to wash their hands as specified under §228.38(e) of this title; <sup>P</sup> [15]

(v) proper fingernail maintenance as specified under §228.39 of this title; <sup>P</sup> [15]

(vi) prohibition of jewelry as specified under §228.40 of this title; <sup>P</sup> [15]

(vii) good hygienic practices as related to §228.42(a) and (b) of this title; <sup>P</sup> [15] and

**§228.65 (a)(5)(D)(viii)**

**§228.66 (a)(1)(A)(ii)**

(viii) employee health policies that detail how the food establishment complies with §228.35, 228.36, and 228.37 of this title; <sup>P</sup> [15]

(E) documentation that hands are washed before food preparation and as necessary to prevent cross contamination by food employees as specified under §228.38(a) - (b) and subsections (d) - (e) during all hours of operation when the specific ready-to-eat foods are prepared; <sup>P</sup> [15]

(F) documentation is maintained at the food establishment that food employees contacting ready-to-eat foods with bare hands utilize two or more of the following control measures to provide additional safeguards to hazards associated with bare hand contact:

(i) double handwashing; <sup>P</sup> [15]

(ii) nail brushes; <sup>P</sup> [15]

(iii) a hand sanitizer after handwashing as specified under §228.38(f) of this title; <sup>P</sup> [15]

(iv) incentive programs that assist or encourage food employees not to work when they are ill such as paid sick leave; <sup>P</sup> [15]

(v) other control measures approved by the regulatory authority; <sup>P</sup> [15] and

(G) documentation is maintained at the food establishment that corrective actions are taken when paragraph (5)(A)-(E) of this subsection are not followed. <sup>P</sup> [15]

(b) Preventing contamination when tasting. A food employee may not use a utensil more than once to taste food that is to be sold or served. <sup>P</sup> [9]

**§228.66. Preventing Food and Ingredient Contamination.**

(a) Packaged and unpackaged food - separation, packaging, and segregation.

(1) Food shall be protected from cross contamination by:

(A) except as specified in subparagraph (A)(iii) of this paragraph, separating raw animal foods during storage, preparation, holding, and display from:

(i) raw ready-to-eat food including other raw animal food such as fish for sushi or molluscan shellfish, or other raw ready-to-eat food such as vegetables; <sup>P</sup> [9] and

(ii) cooked ready-to-eat food; <sup>P</sup> [9]

**§228.66 (a)(1)(A)(iii)**

**§228.66 (a)(2)(B)**

(iii) frozen, commercially processed and packaged raw animal food may be stored or displayed with or above frozen, commercially processed and packaged, ready-to-eat food.

(B) except when combined as ingredients, separating types of raw animal foods from each other such as beef, fish, lamb, pork, and poultry during storage, preparation, holding, and display by:

(i) using separate equipment for each type; <sup>P</sup> [9] or

(ii) arranging each type of food in equipment so that cross contamination of one type with another is prevented; <sup>P</sup> [9] and

(iii) preparing each type of food at different times or in separate areas; <sup>P</sup> [9]

(C) cleaning equipment and utensils as specified under §228.114(a) of this title (relating to Equipment, Utensils, and Linens), and sanitizing as specified under §228.118 of this title;

(D) except as specified in §228.75(e)(2)(b) of this title and paragraph (2) of this subsection, storing the food in packages, covered containers, or wrappings; [37]

(E) cleaning hermetically sealed containers of food of visible soil before opening; [42]

(F) protecting food containers that are received packaged together in a case or overwrap from cuts when the case or overwrap is opened; [37]

(G) storing damaged, spoiled, or recalled food being held in the food establishment as specified under §228.184 of this title; [37] and

(H) separating fruits and vegetables, before they are washed as specified under subsection (f) of this section from ready-to-eat food. [37]

(2) paragraph (1)(D) of this subsection does not apply to:

(A) whole, uncut, raw fruits and vegetables and nuts in the shell, that require peeling or hulling before consumption;

(B) primal cuts, quarters, or sides of raw meat or slab bacon that are hung on clean, sanitized hooks or placed on clean, sanitized racks;

**§228.66 (a)(2)(C)**

**§228.66 (e)**

(C) whole, uncut, processed meats such as country hams, and smoked or cured sausages that are placed on clean, sanitized racks;

(D) food being cooled as specified under section §228.75(e)(2)(B) of this title; or

(E) shellstock.

(b) Food storage containers, identified with common name of food. Except for containers holding food that can be readily and unmistakably recognized such as dry pasta, working containers holding food or food ingredients that are removed from their original packages for use in the food establishment, such as cooking oils, flour, herbs, potato flakes, salt, spices, and sugar shall be identified with the common name of the food. [41]

(c) Pasteurized eggs, substitute for raw shell eggs for certain recipes. Pasteurized eggs or egg products shall be substituted for raw shell eggs in the preparation of foods such as Caesar salad, hollandaise or Béarnaise sauce, mayonnaise, meringue, eggnog, ice cream, and egg-fortified beverages that are not: <sup>P</sup> [7]

(1) cooked as specified under §228.71(a)(1)(A)(i)-(ii) of this title; <sup>P</sup> [7] or

(2) included under §228.71(a)(4) of this title. <sup>P</sup> [7]

(d) Protection from unapproved additives.

(1) Food shall be protected from contamination that may result from the addition of, as specified in §228.63(b) of this title:

(A) unsafe or unapproved food or color additives; <sup>P</sup> [17] and

(B) unsafe or unapproved levels of approved food and color additives. <sup>P</sup> [17]

(2) A food employee may not:

(A) apply sulfiting agents to fresh fruits and vegetables intended for raw consumption or to a food considered to be a good source of vitamin B<sub>1</sub>; <sup>P</sup> [17] or

(B) except for grapes, serve or sell food specified under subparagraph (A) of this paragraph that is treated with sulfiting agents before receipt by the food establishment. <sup>P</sup> [17]

(e) Washing fruits and vegetables.

**§228.66 (e)(1)**

**§228.68 (a)(1)**

(1) Except as specified in paragraph (2) of this subsection and except for whole, raw fruits and vegetables that are intended for washing by the consumer before consumption, raw fruits and vegetables shall be thoroughly washed in water to remove soil and other contaminants before being cut, combined with other ingredients, cooked, served, or offered for human consumption in ready-to-eat form. [37]

(2) Fruits and vegetables may be washed by using chemicals as specified under §228.206(b) of this title.

(3) Devices used for on-site generation of chemicals meeting the requirements specified in 21 CFR 173.315, chemicals used in the washing or to assist in the peeling of fruits and vegetables, for the washing of raw, whole fruits and vegetables shall be used in accordance with the manufacturer's instructions. <sup>Pf</sup> [25]

**§228.67. Preventing Contamination from Ice Used as a Coolant.**

(a) Ice used as exterior coolant, prohibited as ingredient. After use as a medium for cooling the exterior surfaces of food such as melons or fish, packaged foods such as canned beverages, or cooling coils and tubes of equipment, ice may not be used as food. <sup>P</sup> [9]

(b) Storage or display of food in contact with water or ice.

(1) Packaged food may not be stored in direct contact with ice or water if the food is subject to the entry of water because of the nature of its packaging, wrapping, or container or its positioning in the ice or water. [37]

(2) Except as specified in paragraphs (3) and (4) of this subsection, unpackaged food may not be stored in direct contact with undrained ice. [37]

(3) Whole, raw fruits or vegetables; cut, raw vegetables such as celery or carrot sticks or cut potatoes; and tofu may be immersed in ice or water.

(4) Raw chicken and raw fish that are received immersed in ice in shipping containers may remain in that condition while in storage awaiting preparation, display, service, or sale.

**§228.68. Preventing Contamination from Equipment, Utensils, and Linens.**

(a) Food shall only contact surfaces of:

(1) equipment and utensils that are cleaned as specified under §§228.113, 228.114 and 228.115 of this title and sanitized as specified under §§228.116, 228.117 and 228.118 of this title; <sup>P</sup> [9]

**§228.68 (a)(2)**

**§228.68 (d)(2)**

(2) single-service and single-use articles; <sup>P</sup> [9]

(3) linens, such as cloth napkins, as specified under subsection (c) that are laundered as specified under part §228.119 of this title. <sup>P</sup> [9]

(b) In-use utensils, between-use storage. During pauses in food preparation or dispensing, food preparation and dispensing utensils shall be stored: [39]

(1) except as specified under subsection (a) of this section, in the food with their handles above the top of the food and the container; [39]

(2) in food that is not time/temperature controlled for safety with their handles above the top of the food within containers or equipment that can be closed, such as bins of sugar, flour, or cinnamon; [39]

(3) on a clean portion of the food preparation table or cooking equipment only if the in-use utensil and the food-contact surface of the food preparation table or cooking equipment are cleaned and sanitized at a frequency specified under §228.114 and §228.117 of this title; [39]

(4) in running water of sufficient velocity to flush particulates to the drain, if used with moist food such as ice cream or mashed potatoes; [39]

(5) in a clean, protected location if the utensils, such as ice scoops, are used only with a food that is not time/temperature control for safety; [39] or

(6) in a container of water if the water is maintained at a temperature of at least 57 degrees Celsius (135 degrees Fahrenheit) and the container is cleaned at a frequency specified under §228.114(a)(4)(G) of this title. [39]

(c) Linens and napkins, use limitation. Linens, such as cloth napkins, may not be used in contact with food unless they are used to line a container for the service of foods and the linens and napkins are replaced each time the container is refilled for a new consumer. [39]

(d) Wiping cloths, use limitation.

(1) cloths in-use for wiping food spills from tableware and carry-out containers that occur as food is being served shall be:

(A) maintained dry; [36] and

(B) used for no other purpose. [36]

(2) cloths in-use for wiping counters and other equipment surfaces shall be:

**§228.68 (d)(2)(A)**

**§228.68 (f)(1)**

(A) held between uses in a chemical sanitizer solution at a concentration specified under §228.111(n) of this title; [36] and

(B) laundered daily as specified under §228.120(d) of this title. [36]

(3) cloths in-use for wiping surfaces in contact with raw animal foods shall be kept separate from cloths used for other purposes. [36]

(4) dry wiping cloths and the chemical sanitizing solutions specified in paragraph (2)(A) of this subsection in which wet wiping cloths are held between uses shall be free of food debris and visible soil. [36]

(5) containers of chemical sanitizing solutions specified in paragraph (2)(A) of this subsection in which wet wiping cloths are held between uses shall be stored off the floor and used in a manner that prevents contamination of food, equipment, utensils, linens, single-service, or single-use articles. [36]

(6) single-use disposable sanitizer wipes shall be used in accordance with EPA-approved manufacturer's label use instructions. [36]

(e) Gloves, use limitation.

(1) If used, single-use gloves shall be used for only one task such as working with ready-to-eat food or with raw animal food, used for no other purpose, and discarded when damaged or soiled, or when interruptions occur in the operation. <sup>P</sup> [14]

(2) Except as specified in paragraph (3) of this subsection, slash-resistant gloves that are used to protect the hands during operations requiring cutting shall be used in direct contact only with food that is subsequently cooked as specified under section §228.71 of this title such as frozen food or a primal cut of meat. <sup>P</sup> [14]

(3) Slash-resistant gloves may be used with ready-to-eat food that will not be subsequently cooked if the slash-resistant gloves have a smooth, durable, and nonabsorbent outer surface; or if the slash-resistant gloves are covered with a smooth, durable, nonabsorbent glove, or a single-use glove. <sup>P</sup> [14]

(4) Cloth gloves may not be used in direct contact with food unless the food is subsequently cooked as required under section §228.71 of this title such as frozen food or a primal cut of meat. <sup>P</sup> [14]

(f) Using clean tableware for second portions and refills.

(1) Except for refilling a consumer's drinking cup or container without contact between the pouring utensil and the lip-contact area of the drinking cup or container, food



**§228.68 (f)(1)**

**§228.68 (g)(3)**

employees may not use tableware, including single-service articles, soiled by the consumer, to provide second portions or refills. [39]

(2) Except as specified in paragraph (3) of this subsection, self-service consumers may not be allowed to use soiled tableware, including single-service articles, to obtain additional food from the display and serving equipment. A card, sign or other effective means of notification shall be displayed to notify consumers that clean tableware is to be used upon return to self-service areas such as salad bars and buffets. <sup>Pf</sup> [26]

(3) Drinking cups and containers may be reused by self-service consumers if refilling is a contamination-free process as specified under §228.106(1), (2), and (4) of this title. [39]

(g) Refilling returnables.

(1) Except as specified in paragraphs (2) - (5) of this subsection, empty containers returned to a food establishment for cleaning and refilling with food shall be cleaned and refilled in a regulated food processing plant. <sup>P</sup> [10]

(2) A take-home food container returned to a food establishment may be refilled at the food establishment with food if the food container is:

(A) designed and constructed for reuse as specified in subchapter D of this chapter; <sup>P</sup> [10]

(B) one that was initially provided by the food establishment to the consumer, either empty or filled with food by the food establishment, for the purpose of being returned for reuse; <sup>P</sup> [10]

(C) returned to the food establishment by the consumer after use; <sup>P</sup> [10]

(D) subject to the following steps before being refilled with food:

(i) cleaned as specified in §§228.113, 228.114 and 228.115 of this title. <sup>P</sup>-[10]

(ii) sanitized as specified under §§228.116, 228.117, and 228.118 of this title; <sup>P</sup> [10]

(iii) visually inspected by the food establishment to verify that the container, as returned, as specified in subchapter D of this chapter. <sup>P</sup> [10]

(3) A take-home food container returned to a food establishment may be refilled at a food establishment with beverage if: [39]

**§228.68 (g)(3)(A)**

**§228.69 (a)(1)(C)**

(A) the beverage is not a time/temperature control for safety (TCS) food; [39]

(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; [39]

(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; [39]

(D) the consumer-owned container returned to the food establishment for refilling is refilled for sale or service only to the same consumer; [39] and

(E) the container is refilled by:

(i) an employee of the food establishment, [39] or

(ii) the owner of the container if the beverage system includes a contamination-free transfer process as specified under §228.106(c)(1), (2), and (4) of this title that cannot be bypassed by the container owner. [39]

(4) consumer-owned, personal take-out beverage containers, such as thermally insulated bottles, nonspill coffee cups, and promotional beverage glasses, may be refilled by employees or the consumer if refilling is a contamination-free process as specified under §228.106(c)(1), (2), and (4) of this title. [39]

(5) consumer-owned containers that are not food-specific may be filled at a water vending machine or system. [39]

§228.69. Preventing Contamination from the Premises.

(a) Food storage.

(1) Except as specified in paragraphs (2) and (3) of this subsection, food shall be protected from contamination by storing the food: [37]

(A) in a clean, dry location; [37]

(B) where it is not exposed to splash, dust, or other contamination; [37]  
and

(C) at least 15 cm (6 inches) above the floor. [37]

**§228.69 (a)(2)**

**§228.70 (a)**

(2) Food in packages and working containers may be stored less than 15 cm (6 inches) above the floor on case lot handling equipment as specified in §228.106(v) of this title. [37]

(3) Pressurized beverage containers, cased food in waterproof containers such as bottles or cans, and milk containers in plastic crates may be stored on a floor that is clean and not exposed to floor moisture. [37]

(b) Food storage, prohibited areas. Food may not be stored:

(1) in locker rooms; [37]

(2) in toilet rooms; [37]

(3) in dressing rooms; [37]

(4) in garbage rooms; [37]

(5) in mechanical rooms; [37]

(6) under sewer lines that are not shielded to intercept potential drips; [37]

(7) under leaking water lines, including leaking automatic fire sprinkler heads, or under lines on which water has condensed; [37]

(8) under open stairwells; [37] or

(9) under other sources of contamination. [37]

(c) Vended time/temperature control for safety (TCS) food, original container. Time/temperature controlled for safety food dispensed through a vending machine shall be in the package in which it was placed at the food establishment or food processing plant at which it was prepared. <sup>P</sup> [7]

(d) Food preparation. During preparation, unpackaged food shall be protected from environmental sources of contamination. [37]

**§228.70. Preventing Contamination by Consumers.**

(a) Food display. Except for nuts in the shell and whole, raw fruits and vegetables that are intended for hulling, peeling, or washing by the consumer before consumption, food on display shall be protected from contamination by the use of packaging; counter, service line, or salad bar food guards; display cases; or other effective means. <sup>P</sup> [9]

**§228.70 (b)**

**§228.70 (d)(2)(A)**

(b) Condiments, protection.

(1) Condiments shall be protected from contamination by being kept in dispensers that are designed to provide protection, protected food displays provided with the proper utensils, original containers designed for dispensing, or individual packages or portions. [37]

(2) Condiments at a vending machine location shall be in individual packages or provided in dispensers that are filled at an approved location, such as the food establishment that provides food to the vending machine location, a food processing plant that is regulated by the agency that has jurisdiction over the operation, or a properly equipped facility that is located on the site of the vending machine location. [37]

(c) Consumer self-service operations.

(1) Raw, unpackaged animal food, such as beef, lamb, pork, poultry, and fish may not be offered for consumer self-service. <sup>P</sup> [9] This paragraph does not apply to:

(A) consumer self-service of ready-to-eat foods at buffets or salad bars that serve foods such as sushi or raw shellfish;

(B) ready-to-cook individual portions for immediate cooking and consumption on the premises such as consumer-cooked meats or consumer-selected ingredients for Mongolian barbecue; or

(C) raw, frozen, shell-on shrimp or lobster.

(2) Consumer self-service operations for ready-to-eat foods shall be provided with suitable utensils or effective dispensing methods that protect the food from contamination. <sup>P</sup> [9]

(3) Consumer self-service operations such as buffets and salad bars shall be monitored by food employees trained in safe operating procedures. <sup>Pf</sup> [22]

(d) Returned food and re-service of food.

(1) Except as specified in paragraph (2) of this subsection, after being served or sold and in the possession of a consumer, food that is unused or returned by the consumer may not be offered as food for human consumption. <sup>P</sup> [11]

(2) Except as specified under §228.82(7) of this title, a container of food that is not time/temperature controlled for safety may be re-served from one consumer to another if:

(A) the food is dispensed so that it is protected from contamination and the container is closed between uses, such as a narrow-neck bottle containing catsup, steak sauce, or wine; [37] or

**§228.70 (d)(2)(B)**

**§228.71 (a)(1)(C)**

(B) the food, such as crackers, salt, or pepper, is in an unopened original package and is maintained in sound condition. [37]

(e) Preventing contamination from other sources. Miscellaneous sources of Contamination. Food shall be protected from contamination that may result from a factor or source not specified in §§228.65 - 228.70 of this title. [37]

§228.71. Cooking.

(a) Raw animal foods.

(1) Except as specified under paragraphs (2) - (4) of this subsection, raw animal foods such as eggs, fish, meat, poultry, and foods containing these raw animal foods, shall be cooked to heat all parts of the food to a temperature and for a time that complies with one of the following methods based on the food that is being cooked:

(A) 63 degrees Celsius (145 degrees Fahrenheit) or above for 15 seconds for: <sup>P</sup> [4]

(i) raw shell eggs that are broken and prepared in response to a consumer's order and for immediate service; <sup>P</sup> [4] and

(ii) except as specified under paragraph (1)(B) and (C) of this subsection, and paragraphs (2) and (3) of this subsection, fish, meat, and pork including game animals and exotic and game animals commercially raised for food as specified under §228.62(g)(1)(A) and (g)(2)(A) of this title and game animals under a voluntary inspection program as specified under §228.62(g)(2)(B) of this title; <sup>P</sup> [4]

(B) 68 degrees Celsius (155 degrees Fahrenheit) for 15 seconds or the temperature specified in the following chart that corresponds to the holding time for ratites and injected meats; the following if they are comminuted: fish, meat, game animals and exotic animals commercially raised for food as specified under sections §228.62(g)(1)(A) and (g)(2)(A) of this title and game animals and exotic animals under a voluntary inspection program as specified under section §228.62(g)(2)(B) of this title; and raw eggs that are not prepared as specified under subparagraph (A)(i) of this paragraph; <sup>P</sup> [4] or

Figure: 25 TAC §228.71(a)(1)(B)

(C) 74 degrees Celsius (165 degrees Fahrenheit) or above for 15 seconds for poultry, baluts, wild game animals and exotic animals as specified under sections §228.62(g)(1)(C) and (g)(2)(C) and (D) of this title, stuffed fish, stuffed meat, stuffed pasta, stuffed poultry, stuffed ratites, or stuffing containing fish, meat, poultry, or ratites. <sup>P</sup> [4]

**§228.71 (a)(2)**

**§228.71 (a)(4)(C)**

(2) Whole beef roasts, corned beef roasts, pork roasts, and cured pork roasts such as ham, shall be cooked:

(A) in an oven that is preheated to the temperature specified for the roast's weight in the following chart and that is held at that temperature; <sup>Pf</sup> [25] and

Figure: 25 TAC §228.71(a)(2)(A)

(B) as specified in the following chart, to heat all parts of the food to a temperature and for the holding time that corresponds to that temperature. <sup>P</sup> [4]

Figure: 25 TAC §228.71(a)(2)(B)

(3) A raw or undercooked whole-muscle, intact beef steak may be served or offered for sale in a ready-to-eat form if:

(A) the food establishment serves a population that is not a highly susceptible population;

(B) the steak is labeled to indicate that it meets the definition of “whole-muscle, intact beef” as specified under section §228.62 (a)(5) of this title; and

(C) the steak is cooked on both the top and bottom to a surface temperature of 63 degrees Celsius (145 degrees Fahrenheit) or above and a cooked color change is achieved on all external surfaces. <sup>P</sup> [4]

(4) A raw animal food such as raw egg, raw fish, raw-marinated fish, raw molluscan shellfish, or steak tartare; or a partially cooked food such as lightly cooked fish, soft cooked eggs, or rare meat other than whole-muscle, intact beef steaks as specified in subparagraph (C) of this paragraph, may be served or offered for sale upon consumer request or selection in a ready-to-eat form if:

(A) as specified under subsection §228.82(3)(A) and (B) of this title, the food establishment serves a population that is not a highly susceptible population; and

(B) the food, if served or offered for service by consumer selection from a children’s menu, does not contain comminuted meat; <sup>P</sup> [16] and

(C) the consumer is informed as specified under section §228.80 of this title that to ensure its safety, the food should be cooked as specified under paragraph (1) or (2) of this subsection; or

**§228.71 (a)(4)(D)**

**§228.71 (d)(4)**

(D) the regulatory authority grants a variance from paragraph (1) or (2) of this subsection as specified in §228.243(a) of this title (relating to Compliance) based on a HACCP plan that:

(i) is submitted by the permit holder and approved as specified under §228.243(b) of this title;

(ii) documents scientific data or other information showing that a lesser time and temperature regimen results in a safe food; and

(iii) verifies that equipment and procedures for food preparation and training of food employees at the food establishment meet the conditions of the variance.

(b) Microwave cooking. Raw animal foods cooked in a microwave oven shall be:

(1) rotated or stirred throughout or midway during cooking to compensate for uneven distribution of heat; [47]

(2) covered to retain surface moisture; [47]

(3) heated to a temperature of at least 74 degrees Celsius (165 degrees Fahrenheit) in all parts of the food; <sup>P</sup> [4] and

(4) allowed to stand covered for 2 minutes after cooking to obtain temperature equilibrium. [47]

(c) Plant food cooking for hot holding. Fruits and vegetables that are cooked for hot holding shall be cooked to a temperature of 57 degrees Celsius (135 degrees Fahrenheit). <sup>P</sup> [4]

(d) Non-continuous Cooking of raw animal foods. Raw animal foods that are cooked using non-continuous cooking process shall be:

(1) subject to an initial heating process that is no longer than sixty minutes in duration; <sup>P</sup> [4]

(2) immediately after initial heating, cooled as specified in §228.75(d) of this title; <sup>P</sup> [1]

(3) after cooling, held frozen or cold, as specified for time/temperature control for safety (TCS) food under §228.75(f)(1)(B) of this title; <sup>P</sup> [2]

(4) prior to sale or service, cooked using a process that heats all parts of the food to a temperature and for a time as specified under §228.71(1)-(3) of this title; <sup>P</sup> [4]

**§228.71 (d)(5)**

**§228.71(d)(6)(E)**

(5) cooled according to the time and temperature parameters specified for cooked time /temperature control for safety food under §228.75(d)(1) if not either hot held as specified under §228.75(f)(1) of this title, served immediately, or held using time as a public health control as specified under §228.75(i) of this title after complete cooking; <sup>P</sup> [3]

(6) prepared and stored according to written procedures that:

(A) have obtained prior approval from the regulatory authority; <sup>Pf</sup> [25]

(B) are maintained in the food establishment and are available to the regulatory authority upon request; <sup>Pf</sup> [25]

(C) describe how the requirements specified under §228.71(d)(1)-(5) of this title are to be monitored and documented by the permit holder and the corrective actions to be taken if the requirements are not met; <sup>Pf</sup> [25]

(D) describe how the foods, after initial heating, but prior to complete cooking, are to be marked or otherwise identified as foods that must be cooked as specified under paragraph (4) of this subsection prior to being offered for sale or service; <sup>Pf</sup> [25] and

(E) describe how the foods, after initial heating but prior to cooking as specified under (4) of this section, are to be separated from ready-to-eat foods as specified under §228.66 of this title. <sup>Pf</sup> [25]

Figure: 25 TAC §228.71(a)(1)(B)

Cooking Raw Animal Foods  
Alternatives to the 155 Degree Fahrenheit/15 Second Requirement

Minimum Temperature °C (°F)	Minimum Time
63 (145)	3 minutes
66 (150)	1 minute
70 (158)	< 1 second (instantaneous)



**§228.72**

**§228.72 (a)(1)**

Figure: 25 TAC §228.71(a)(2)(A)

Cooking Whole Beef or Corned Beef Roasts  
Oven Preheating/Holding Requirements Per Weight

Oven Type	Oven Temperature Based on Roast Weight	
	Less than 4.5 kg (10 lbs.)	4.5 kg (10 lbs.) or More
Still Dry	177° C (350° F) or more	121° C (250° F) or more
Convection	121° C (250° F) or more	121° C (250° F) or more
High Humidity <sup>1</sup>	121° C (250° F) or more	121° C (250° F) or more

<sup>1</sup> Relative humidity greater than 90% for at least 1 hour as measures in the cooking chamber or exit of the oven ; or in a moisture-impermeable bag that provides 100% humidity.

Figure: 25 TAC §228.71(a)(2)(B)

Cooking Whole Beef or Corned Beef Roasts  
Heating Temperatures and Holding Times

Temperature °C (°F)	Time <sup>1</sup> in Minutes	Temperature °C (°F)	Time <sup>1</sup> in Seconds
54.4 (130)	112	63.9 (147)	134
55.0 (131)	89	65.0 (149)	85
56.1 (133)	56	66.1 (151)	54
57.2 (135)	36	67.2 (153)	34
57.8 (136)	28	68.3 (155)	22
58.9 (138)	18	69.4 (157)	14
60.0 (140)	12	70.0 (158)	0
61.1 (142)	8		
62.2 (144)	5		
62.8 (145)	4		

<sup>1</sup> Holding time may include postoven heat rise.

§228.72. Freezing.

(a) Parasite destruction.

(1) Except as specified in paragraph (2) of this subsection, before service or sale in ready-to-eat form, raw, raw-marinated, partially cooked, or marinated-partially cooked fish other than Molluscan shellfish shall be:

**§228.72 (a)(1)(A)**

**§228.72 (b)(2)**

(A) frozen and stored at a temperature of -20 degrees Celsius (-4 degrees Fahrenheit) or below for 168 hours (7 days) in a freezer; <sup>P</sup> [7]

(B) frozen at -35 degrees Celsius (-31 degrees Fahrenheit) or below until solid and stored at -35 degrees Celsius (-31 degrees Fahrenheit) for 15 hours; <sup>P</sup> [7] or

(C) frozen at -35 degree Celsius (-31 degrees Fahrenheit) or below until solid and stored at -20 degree Celsius (-4 degrees Fahrenheit) or below for a minimum of 24 hours. <sup>P</sup> [7]

(2) paragraph (1) of this subsection does not apply to:

(A) molluscan shellfish;

(B) a scallop product consisting only of the shucked adductor muscle;

(C) tuna of the species thunnus alalunga, thunnus albacares (yellowfin tuna), thunnus atlanticus, thunnus maccoyii (bluefin tuna, southern), thunnus obesus (bigeye tuna), or thunnus thynnus (bluefin tuna, northern); or

(D) aquacultured fish, such as but not limited to salmon, carp, channel catfish, trout, and tilapia, that:

(i) if raised in open water, are raised in net-pens, or

(ii) are raised in land-based operations such as ponds or tanks, and

(iii) are fed formulated feed, such as pellets, that contains no live parasites infective to the aquacultured fish.

(E) fish eggs that have been removed from the skein and rinsed.

(b) Records, creation and retention.

(1) Except as specified in subsection (a)(2) of this section and paragraph (2) of this subsection, if raw, raw-marinated, partially cooked, or marinated-partially cooked fish are served or sold in ready-to-eat form, the person in charge shall record the freezing temperature and time to which the fish are subjected and shall retain and have accessible the records of the food establishment for 90 calendar days beyond the time of service or sale of the fish. <sup>Pf</sup> [24]

(2) If the fish are frozen by a supplier, a written agreement or statement from the supplier stipulating that the fish supplied are frozen to a temperature and for a time specified under subsection (a)(1) of this section, may substitute for the records specified under paragraph (1) of this subsection.

**§228.72 (b)(3)**

**§228.74 (a)**

(3) if raw, raw-marinated, partially cooked, or marinated-partially cooked fish are served or sold in ready-to-eat form, and the fish are raised and fed as specified in subsection (a)(2)(C) of this section, a written agreement or statement from the supplier or aquaculturist stipulating that the fish were raised and fed as specified in subsection (a)(2)(D) of this section shall be obtained by the person in charge and retained in the records of the food establishment for 90 calendar days beyond the time of service or sale of the fish. <sup>Pf</sup> [24]

(c) Preparation for immediate service. Cooked and refrigerated food that is prepared for immediate service in response to an individual consumer order, such as roast beef sandwich au jus, may be served at any temperature.

**§228.73. Reheating for Hot Holding.**

(a) Except as specified under paragraphs (2), (3) and in (5) of this subsection, time/temperature controlled for safety food that is cooked, cooled, and reheated for hot holding shall be reheated so that all parts of the food reach a temperature of at least 74 degrees Celsius (165 degrees Fahrenheit) for 15 seconds. <sup>P</sup> [5]

(b) Except as specified under paragraph (3) of this subsection, time/temperature control for safety food reheated in a microwave oven for hot holding shall be reheated so that all parts of the food reach a temperature of at least 74 degrees Celsius (165 degrees Fahrenheit) and the food is rotated or stirred, covered, and allowed to stand covered for 2 minutes after reheating. <sup>P</sup> [5]

(c) Ready-to-eat time/temperature control for safety (TCS) food that has been commercially processed and packaged in a food processing plant that is inspected by the regulatory authority that has jurisdiction over the plant, shall be heated to a temperature of at least 57 degrees Celsius (135 degrees Fahrenheit) when being reheated for hot holding. <sup>P</sup> [5]

(d) Reheating for hot holding as specified under paragraphs (1)-(3) of this subsection shall be done rapidly and the time the food is between 5 degrees Celsius (41 degrees Fahrenheit) and the temperatures specified under paragraphs (1)-(3) of this subsection may not exceed 2 hours. <sup>P</sup> [5]

(e) Remaining unsliced portions of meat roasts that are cooked as specified under subsection §228.71(a)(2) of this title, may be reheated for hot holding using the oven parameters and minimum time and temperature conditions specified under subsection §228.71(a)(2) of this title. <sup>P</sup> [5]

**§228.74. Juice Packaged in a Food Establishment.**

(a) Juice treated under a HACCP plan as specified in §228.244(d)(2)-(5) of this title (relating to Compliance) to attain a 5-log reduction, which is equal to a 99.999% reduction, of the most resistant microorganism of public health significance; <sup>P</sup> [9] or

**§228.74 (b)**

**§228.75 (c)(2)(D)**

(b) Juice labeled, if not treated to yield a 5-log reduction of the most resistant microorganism of public health significance: <sup>Pf</sup> [26]

(1) as specified under section §228.79 of this title; <sup>Pf</sup> [26] and

(2) as specified in 21 CFR §101.17(g) food labeling, warning, notice, and safe handling statements, juices that have not been specifically processed to prevent, reduce, or eliminate the presence of pathogens with the following, “WARNING: THIS PRODUCT HAS NOT BEEN PASTEURIZED AND, THEREFORE, MAY CONTAIN HARMFUL BACTERIA THAT CAN CAUSE SERIOUS ILLNESS IN CHILDREN, THE ELDERLY, AND PERSONS WITH WEAKENED IMMUNE SYSTEMS.” <sup>Pf</sup> [26]

§228.75. Temperature and Time Control.

(a) Frozen food. Stored frozen foods shall be maintained frozen. [38]

(b) Time/temperature controlled for safety food, slacking. Frozen time/temperature control for safety food that is slacked to moderate the temperature shall be held: [38]

(1) under refrigeration that maintains the food temperature at 5 degrees Celsius (41 degrees Fahrenheit) or less; [38] or

(2) at any temperature if the food remains frozen. [38]

(c) Thawing. Except as specified in paragraph (4) of this subsection, time/temperature control for safety (TCS) food shall be thawed:

(1) under refrigeration that maintains the food temperature at 5 degrees Celsius (41 degrees Fahrenheit) or less; [38] or

(2) completely submerged under running water:

(A) at a water temperature of 21 degrees Celsius (70 degrees Fahrenheit) or below; [38]

(B) with sufficient water velocity to agitate and float off loose particles in an overflow; [38] and

(C) for a period of time that does not allow thawed portions of ready-to-eat food to rise above 5 degrees Celsius (41 degrees Fahrenheit), [38] or

(D) for a period of time that does not allow thawed portions of a raw animal food requiring cooking as specified in section §228.71(a)(1) or (2) of this title to be above 5 degrees Celsius (41 degrees Fahrenheit), for more than 4 hours including: [38]

**§228.75 (c)(2)(D)(i)**

**§228.75 (d)(3)**

(i) the time the food is exposed to the running water and the time needed for preparation for cooking; [38] or

(ii) the time it takes under refrigeration to lower the food temperature to 5 degrees Celsius (41 degrees Fahrenheit); [38]

(3) as part of a cooking process if the food that is frozen is:

(A) cooked as specified in sections §228.71(a)(1) - (2) or (b) of this title; [38] or

(B) thawed in a microwave oven and immediately transferred to conventional cooking equipment, with no interruption in the process; [38] or

(4) using any procedure if a portion of frozen ready-to-eat food is thawed and prepared for immediate service in response to an individual consumer's order. [38]

(5) reduced oxygen packaged fish that bears a label indicating that it is to be kept frozen until time of use shall be removed from the reduced oxygen environment:

(A) prior to its thawing under refrigeration as specified in paragraph (1) of this subsection; [38] or

(B) prior to, or immediately upon completion of, its thawing using procedures specified in paragraph (2) of this subsection. [38]

(d) Cooling.

(1) Cooked time/temperature control for safety food shall be cooled:

(A) within two hours, from 57 degrees Celsius (135 degrees Fahrenheit) to 21 degrees C (70 degrees Fahrenheit);<sup>P</sup> [1] and

(B) within a total of six hours, from 57 degrees Celsius (135 degrees Fahrenheit) to 5 degrees Celsius (41 degrees Fahrenheit) or less.<sup>P</sup> [1]

(2) Time/temperature controlled for safety food shall be cooled within four hours to 5 degrees Celsius (41 degrees Fahrenheit) or less, if prepared from ingredients at ambient temperature, such as reconstituted foods and canned tuna.<sup>P</sup> [1]

(3) Except as specified in paragraph (4) of this subsection, a time/temperature control for safety food received in compliance with laws allowing a temperature above 5 degrees Celsius (41 degrees Fahrenheit) during shipment from the supplier as specified in section

**§228.75 (d)(3)**

**§228.75 (f)(1)**

§228.63(a)(2) of this title, shall be cooled within four hours to 5 degrees Celsius (41 degrees Fahrenheit) or less. <sup>P</sup> [1]

(4) Raw shell eggs shall be received as specified under section §228.63(a)(3) of this title and immediately placed in refrigerated equipment that maintains an ambient air temperature of 7 degrees Celsius (45 degrees Fahrenheit) or less. <sup>P</sup> [1]

(e) Cooling methods.

(1) Cooling shall be accomplished in accordance with the time and temperature criteria specified under subsection (d) of this section by using one or more of the following methods based on the type of food being cooled:

- (A) placing the food in shallow pans; <sup>Pf</sup> [27]
- (B) separating the food into smaller or thinner portions; <sup>Pf</sup> [27]
- (C) using rapid cooling equipment; <sup>Pf</sup> [27]
- (D) stirring the food in a container placed in an ice water bath; <sup>Pf</sup> [27]
- (E) using containers that facilitate heat transfer; <sup>Pf</sup> [27]
- (F) adding ice as an ingredient; <sup>Pf</sup> [27] or
- (G) other effective methods. <sup>Pf</sup> [27]

(2) When placed in cooling or cold holding equipment, food containers in which food is being cooled shall be:

(A) arranged in the equipment to provide maximum heat transfer through the container walls; [39] and

(B) loosely covered, or uncovered if protected from overhead contamination as specified under subsection §228.69(a)(1)(B) of this title, during the cooling period to facilitate heat transfer from the surface of the food. [39]

(f) Time/temperature controlled for safety food, hot and cold holding.

(1) Except during preparation, cooking, or cooling, or when time is used as the public health control as specified under subsection (i) of this section, and except as specified in paragraphs (2) and (3) of this subsection, time/temperature control for safety food shall be maintained:

**§228.75 (f)(1)(A)**

**§228.75 (g)(3)**

(A) at 57 degrees Celsius (135 degrees Fahrenheit) or above, except that roasts cooked to a temperature and for a time specified in subsection §228.71(a)(2) of this title or reheated as specified in subsection §228.73(a)(5) of this title may be held at a temperature of 54 degrees Celsius (130 degrees Fahrenheit) or above; <sup>P</sup> [3] or

(B) 5 degrees Celsius (41 degrees Fahrenheit) or less; <sup>P</sup> [2]

(2) Eggs that have not been treated to destroy all viable Salmonellae shall be stored in refrigerated equipment that maintains an ambient air temperature of 7 degrees Celsius (45 degrees Fahrenheit) or less. <sup>P</sup> [2]

(3) Time/temperature Control for Safety (TCS) food in a homogenous liquid form may be maintained outside of the temperature control requirements, as specified under paragraph (1) of this subsection, while contained within specially designed equipment that complies with the design and construction requirements as specified under §228.106(c)(5) of this title.

(g) Ready-to-eat, time/temperature control for safety food, date marking.

(1) Except when packaging food using a reduced oxygen packaging method as specified under §228.77 of this title, and except as specified in paragraphs (5) and (6) of this subsection, refrigerated, ready-to-eat, time/temperature control for safety (TCS) food prepared and held in a food establishment for more than 24 hours shall be clearly marked to indicate the date or day by which the food shall be consumed on the premises, sold, or discarded when held at a temperature of 5 degrees Celsius (41 degrees Fahrenheit) or less for a maximum of 7 days. The day of preparation shall be counted as day 1. <sup>Pf</sup> [28]

(2) Except as specified in paragraphs (5) - (7) of this subsection, refrigerated, ready-to-eat, time/temperature controlled for safety food prepared and packaged by a food processing plant shall be clearly marked, at the time the original container is opened in a food establishment and held at a temperature of 41 degrees Fahrenheit (5 degrees Celsius) or less if the food is held for more than 24 hours, to indicate the date or day by which the food shall be consumed on the premises, sold, or discarded, based on the temperature and time combinations specified in paragraph (1) of this paragraph: <sup>Pf</sup> [28]

(A) the day the original container is opened in the food establishment shall be counted as Day 1; <sup>Pf</sup> [28] and

(B) the day or date marked by the food establishment may not exceed a manufacturer's use-by date if the manufacturer determined the use-by date based on food safety. <sup>Pf</sup> [28]

(3) A refrigerated, ready-to-eat time/temperature control for safety (TCS) food ingredient or a portion of a refrigerated, ready-to-eat, time/temperature control for safety (TCS)

**§228.75 (g)(3)**

**§228.75 (g)(7)(C)**

food that is subsequently combined with additional ingredients or portions of food shall retain the date marking of the earliest-prepared or first- prepared ingredient. <sup>Pf</sup> [28]

(4) A date marking system that meets the criteria stated in paragraphs (1) and (2) of this subsection may include:

(A) using a method approved by the regulatory authority for refrigerated, ready-to-eat time/temperature control for safety (TCS) food that is frequently rewrapped, such as lunchmeat or a roast, or for which date marking is impractical, such as soft serve mix or milk in a dispensing machine;

(B) marking the date or day of preparation, with a procedure to discard the food on or before the last date or day by which the food must be consumed on the premises, sold, or discarded as specified under paragraph (1) of this subsection;

(C) marking the date or day the original container is opened in a food establishment, with a procedure to discard the food on or before the last date or day by which the food must be consumed on the premises, sold, or discarded as specified under paragraph (2) of this subsection; or

(D) using calendar dates, days of the week, color-coded marks, or other effective marking methods, provided that the marking system is disclosed to the regulatory authority upon request.

(5) paragraphs (1) and (2) of this subsection do not apply to individual meal portions served or repackaged for sale from a bulk container upon a consumer's request.

(6) paragraphs (1) and (2) of this subsection do not apply to shellstock.

(7) paragraph (2) of this subsection does not apply to the following foods prepared and packaged by a food processing plant inspected by a regulatory authority:

(A) deli salads, such as ham salad, seafood salad, chicken salad, egg salad, pasta salad, potato salad, and macaroni salad, manufactured in accordance with 21 CFR 110 current good manufacturing practice in manufacturing, packing, or holding human food;

(B) hard cheeses containing not more than 39% moisture as defined in 21 CFR 133 cheeses and related cheese products, such as cheddar, gruyere, parmesan and reggiano, and romano;

(C) semi-soft cheeses containing more than 39% moisture, but not more than 50% moisture, as defined in 21 CFR 133 cheeses and related cheese products, such as blue, edam, gorgonzola, gouda, and monterey jack;



**§228.75 (g)(7)(D)**

**§228.75 (i)(1)(B)**

(D) cultured dairy products as defined in 21 CFR 131 milk and cream, such as yogurt, sour cream, and buttermilk;

(E) preserved fish products, such as pickled herring and dried or salted cod, and other acidified fish products defined in 21 CFR 114 acidified foods;

(F) shelf stable, dry fermented sausages, such as pepperoni and genoa; and

(G) shelf stable salt-cured products such as prosciutto and parma (ham).

(h) Ready-to-eat, time/temperature control for safety food, disposition.

(1) A food specified in subsection (g) (1) or (2) of this section shall be discarded if it:

(A) exceeds either of the temperature and time combinations specified in subsection (g)(1) of this section, except time that the product is frozen; <sup>P</sup> [6]

(B) is in a container or package that does not bear a date or day; <sup>P</sup> [6] or

(C) is appropriately marked with a date or day that exceeds a temperature and time combination as specified in subsection (g)(1) of this subsection. <sup>P</sup> [6]

(2) Refrigerated, ready-to-eat, time/temperature controlled for safety food prepared in a food establishment and dispensed through a vending machine with an automatic shutoff control shall be discarded if it exceeds a temperature and time combination as specified in subsection (g)(1) of this section. <sup>P</sup> [6]

(i) Time as a public health control.

(1) Except as specified under paragraph (4) of this subsection if time without temperature control is used as the public health control for a working supply of time/temperature control for safety food before cooking, or for ready-to-eat time/temperature control for safety food that is displayed or held for sale or service. Written procedures shall be prepared in advance, maintained in the food establishment and made available to the regulatory authority upon request that specify: <sup>P</sup> [6]

(A) methods of compliance with paragraphs (2)(A)-(C) or (3)(A)-(E) of this subsection; <sup>P</sup> [6] and

(B) methods of compliance with subsection (d) of this section for food that is prepared, cooked, and refrigerated before time is used as a public health control. <sup>P</sup> [6]

**§228.75 (i)(2)**

**§228.75 (i)(3)(D)(i)**

(2) If time without temperature control is used as the public health control up to a maximum of 4 hours:

(A) the food shall have an initial temperature of 5 degrees Celsius (41 degrees Fahrenheit) or less when removed from cold holding temperature control, or 57 degrees Celsius (135 degrees Fahrenheit) or greater when removed from hot holding temperature control; P [6]

(B) the food shall be marked or otherwise identified to indicate the time that is 4 hours past the point in time when the food is removed from temperature control; P [6]

(C) the food shall be cooked and served, served at any temperature if ready-to-eat, or discarded, within 4 hours from the point in time when the food is removed from temperature control; P [6] and

(D) the food in unmarked containers or packages, or marked to exceed a 4-hour limit shall be discarded. P [6]

(3) If time without temperature control is used as the public health control up to a maximum of 6 hours:

(A) the food shall have an initial temperature of 5 degrees Celsius (41 degrees Fahrenheit) or less when removed from temperature control and the food temperature may not exceed 21 degrees Celsius (70 degrees Fahrenheit) within a maximum time period of 6 hours; P [6]

(B) the food shall be monitored to ensure the warmest portion of the food does not exceed 21 degrees Celsius (70 degrees Fahrenheit) during the 6-hour period, unless an ambient air temperature is maintained that ensures the food does not exceed 21 degrees Celsius (70 degrees Fahrenheit) during the 6-hour holding period; P [6]

(C) the food shall be marked or otherwise identified to indicate: P [6]

(i) the time when the food is removed from 5 degrees Celsius (41 degrees Fahrenheit) or less cold holding temperature control; P [6] and

(ii) the time that is 6 hours past the point in time when the food is removed from cold holding temperature control; P [6]

(D) the food shall be:

(i) discarded if the temperature of the food exceeds 21 degrees Celsius (70 degrees Fahrenheit), P [6] or

**§228.75 (i)(3)(D)(ii)**

**§228.76 (8)**

(ii) cooked and served, served at any temperature if ready-to-eat, or discarded within a maximum of 6 hours from the point in time when the food is removed from 5 degrees Celsius (41 degrees Fahrenheit) or less cold holding temperature control; <sup>P</sup> [6] and

(E) the food in unmarked containers or packages, or marked with a time that exceeds the 6-hour limit shall be discarded. <sup>P</sup> [6]

(4) A food establishment that serves a highly susceptible population may not use time as specified under paragraphs (1), (2) or (3) of this subsection as the public health control for raw eggs.

§228.76. Specialized Processing Methods, Variance Requirement.

A food establishment shall obtain a variance from the regulatory authority as specified in section §228.243(a) and (b) of this title before: <sup>Pf</sup> [25]

(1) smoking food as a method of food preservation rather than as a method of flavor enhancement; <sup>Pf</sup> [25]

(2) curing food; <sup>Pf</sup> [25]

(3) using food additives or adding components such as vinegar: <sup>Pf</sup> [25]

(A) as a method of food preservation rather than as a method of flavor enhancement; <sup>Pf</sup> [25] or

(B) to render a food so that it is not time/temperature controlled for safety; <sup>Pf</sup> [25]

(4) packaging time/temperature control for safety (TCS) food using a reduced oxygen packaging method except where the growth of and toxin formation by *Clostridium botulinum* and the growth of *Listeria monocytogenes* are control as specified under §228.77 of this title; <sup>Pf</sup> [25]

(5) operating a Molluscan shellfish life-support system display tank used to store and display shellfish that are offered for human consumption; <sup>Pf</sup> [25]

(6) custom processing animals that are for personal use as food and not for sale or service in a food establishment, such as indigenous deer processing; <sup>Pf</sup> [25]

(7) preparing food by another method that is determined by the regulatory authority to require a variance; <sup>Pf</sup> [25] or

(8) sprouting seeds or beans, such as wheat grass and alfalfa sprouts. <sup>Pf</sup> [25]

§228.77

§228.77 (2)(C)(ii)

§228.77. *Clostridium Botulinum* and *Listeria Monocytogenes* Controls.

Reduced oxygen packaging criteria.

(1) Except for a food establishment that obtains a variance as specified under §228.76 of this title, a food establishment that packages time/temperature controlled for safety food using a reduced oxygen packaging method shall control the growth and toxin formation of *Clostridium botulinum* and the growth of *Listeria monocytogenes*.<sup>P</sup> [9]

(2) Except as specified under paragraph (6) of this section, a food establishment that packages Time/temperature Control for Safety (TCS) food using a reduced oxygen packaging method shall implement a HACCP plan that contains the information specified under §228.244(d)(2) and (4) of this title and that:<sup>Pf</sup> [25]

(A) identifies the food to be packaged;<sup>Pf</sup> [25]

(B) except as specified under paragraphs (3) - (6) of this section, requires that the packaged food shall be maintained at 5 degrees Celsius (41 degrees Fahrenheit) or less and meet at least one of the following criteria:<sup>Pf</sup> [25]

(i) has an  $a_w$  of 0.91 or less;<sup>Pf</sup> [25]

(ii) has a pH of 4.6 or less;<sup>Pf</sup> [25]

(iii) is a meat or poultry product cured at a food processing plant regulated by the USDA or the department using substances specified in 9 CFR §424.21, use of food ingredients and sources of radiation, and is received in an intact package;<sup>Pf</sup> [25] or

(iv) is a food with a high level of competing organisms such as raw meat, raw poultry, or raw vegetables;<sup>Pf</sup> [25]

(C) describes how the packages shall be prominently and conspicuously labeled on the principal display panel in bold type on a contrasting background, with instructions to:<sup>Pf</sup> [25]

(i) maintain the food at 5 degrees Celsius (41 degrees Fahrenheit) or below;<sup>Pf</sup> [25] and

(ii) discard the food if within 30 calendar days of its packaging it is not served for on-premises consumption, or consumed if served or sold for off-premises consumption;<sup>Pf</sup> [25]

**§228.77 (2)(E)(iii)**

**§228.77 (4)(B)**

(D) limits the refrigerated shelf life to no more than 30 calendar days from packaging to consumption, except the time the product is maintained frozen, or the original manufacturer's "sell by" or "use by" date, whichever occurs first; <sup>P</sup> [6]

(E) includes operational procedures that:

(i) prohibit contacting ready-to-eat food with bare hands as specified under §228.65(a)(2) of this title; <sup>Pf</sup> [25]

(ii) identify a designated area and the method by which: <sup>Pf</sup> [25]

(I) physical barriers or methods of separation of raw foods and ready-to-eat foods minimize cross contamination; <sup>Pf</sup> [25] and

(II) Access to the processing equipment is limited to responsible trained personnel familiar with the potential hazards of the operation; <sup>Pf</sup> [25] and

(iii) delineate cleaning and sanitization procedures for food-contact surfaces; <sup>Pf</sup> [25] and

(F) describes the training program that ensures that the individual responsible for the reduced oxygen packaging operation understands the: <sup>Pf</sup> [25]

(i) concepts required for a safe operation; <sup>Pf</sup> [25]

(ii) equipment and facilities; <sup>Pf</sup> [25] and

(iii) procedures specified under paragraph (2)(E) of this subsection and §228.244(d)(2) and (4) of this title. <sup>Pf</sup> [25]

(G) is provided to the regulatory authority prior to implementation as specified under §228.244(c)(3) of this title. <sup>Pf</sup> [25]

(3) Except for fish that is frozen before, during, and after packaging, a food establishment may not package fish using a reduced oxygen packaging method. <sup>P</sup> [9]

(4) Cook-Chill or Sous Vide. Except as specified under paragraphs (3) and (6) of this subsection, a food establishment that packages time/temperature control for safety food using cook-chill or sous vide process shall:

(A) provide to the regulatory authority prior to implementation, a HACCP plan that contains the information specified under §228.244(d)(2) and (4) of this title; <sup>Pf</sup> [25]

(B) ensure the food is:

**§228.77 (4)(B)(i)**

(i) prepared and consumed on the premises, or prepared and consumed off the premises but within the same business entity with no distribution or sale of the packaged product to another business entity or the consumer; <sup>Pf</sup> [25]

(ii) cooked and heat all parts of the food to a temperature and time as specified in §228.71(a)(1), (2) and (3) of this title; <sup>P</sup> [4]

(iii) protected from contamination before and after cooking as specified under §§228.65 - 228.74 of the this title; <sup>P</sup> [9]

(iv) placed in package with oxygen barrier and sealed before cooking, or placed in package and sealed immediately after cooking and before reaching An internal temperature below 57 degrees Celsius (135 degrees Fahrenheit); <sup>P</sup> [3]

(v) cooled to 5 degrees Celsius (41 degrees Fahrenheit) in the sealed package or bag as specified under §228.75(d) <sup>P</sup> [1]

(I) Cooled to 1°C (34°F) within 48 hours of reaching 5°C (41°F) and held at that temperature until consumed or discarded within 30 days after the date of packaging; <sup>P</sup> [2]

(II) Held at 5°C (41°F) or less for no more than 7 days, at which time the food must be consumed or discarded; <sup>P</sup> [2] or

(III) Held frozen with no shelf life restriction while frozen until consumed or used. <sup>P</sup> [2]

(vi) held in a refrigeration unit that is equipped with an electronic system that continuously monitors time and temperature and is visually examined for proper operation twice daily, <sup>Pf</sup> [25]

(vii) if transported off-site to a satellite location of the same business entity, equipped with verifiable electronic monitoring devices to ensure that times and temperatures are monitored during transportation, <sup>Pf</sup> [25] and

(viii) labeled with the product name and the date packaged; <sup>Pf</sup> [25]  
and

(C) Maintain the records required to confirm that cooling and cold holding refrigeration time/temperature parameters are required as part of the HACCP plan and:

(i) make such records available to the regulatory authority upon request, <sup>Pf</sup> [25] and

**§228.77 (4)(C)(ii)**

**§228.78 (b)**

(ii) hold such records for at least 6 months; <sup>Pf</sup> [25] and

(D) Implement written operational procedures as specified under paragraph (2)(E) of this section and a training program as specified under paragraph (2)(F) of this section. <sup>Pf</sup> [25]

(5) Cheese. Except as specified under paragraph (6) of this section, a food establishment that packages cheese using a ROP method shall:

(A) limit the cheeses packaged to those that are commercially manufactured in a food processing plant with no ingredients added in the food establishment and that meet the Standards of Identity as specified in 21 CFR 133.150 Hard cheeses, 21 CFR 133.169 Pasteurized process cheese or 21 CFR 133.187 Semisoft cheeses; <sup>P</sup> [7]

(B) have a HACCP plan that contains the information specified under §228.244(d)(2) and (4) of these title and as specified under paragraph (2)(A), (2)(C)(i), (2)(E) and (2)(F) of this section; <sup>Pf</sup> [25]

(C) labels the package on the principal display panel with a “use by” date that does not exceed 30 days from its packaging or the original manufacturer’s “sell by” or “use by” date, whichever occurs first; <sup>Pf</sup> [25] and

(D) discards the reduced oxygen packaging cheese if it is not sold for off-premises consumption or consumed within 30 calendar days of its packaging. <sup>Pf</sup> [25]

(6) A HACCP Plan is not required when a food establishment uses a reduce oxygen packaging method to package TCS food that is always:

(A) labeled with the production time and date,

(B) held at 5°C (41°F) or less during refrigerated storage, and

(C) removed from its package in the food establishment within 48 hours after packaging.

**§228.78. Food Identity, Presentation, On-premises Labeling, and Accurate Representation.**

(a) Standards of identity. Packaged food shall comply with standard of identity requirements in 21 CFR 131-169, and 9 CFR 319, Definitions and Standards of Identity or Composition, and the general requirements in 21 CFR 130, Food Standards: General, and 9 CFR 319, Subpart A, General. [41]

(b) Honestly presented.

**§228.78 (b)(1)**

**§228.79 (a)(3)**

(1) Food shall be offered for human consumption in a way that does not mislead or misinform the consumer. [41]

(2) Food or color additives, colored overwraps, or lights may not be used to misrepresent the true appearance, color, or quality of a food. [41]

§228.79. Labeling.

(a) Food labels.

(1) Food packaged in a food establishment, shall be labeled as specified in law, including 21 CFR 101, Food Labeling, 9 CFR 317, Labeling, Marking Devices, and Containers, and 9 CFR 381, Subpart N, Labeling and Containers. <sup>Pf</sup> [24]

(2) Label information shall include:

(A) the common name of the food, or absent a common name, an adequately descriptive identity statement; <sup>Pf</sup> [24]

(B) if made from two or more ingredients, a list of ingredients and sub-ingredients in descending order of predominance by weight, including a declaration of artificial color or flavor and chemical preservatives, if contained in the food; <sup>Pf</sup> [24]

(C) an accurate declaration of the quantity of contents; <sup>Pf</sup> [24]

(D) the name and place of business of the manufacturer, packer, or distributor; <sup>Pf</sup> [24] and

(E) the name of the food source for each major food allergen contained in the food unless the food source is already part of the common or usual name of the respective ingredient. <sup>Pf</sup> [26]

(F) except as exempted in the Federal Food, Drug, and Cosmetic Act §403(g)(3)-(5), nutrition labeling as specified in 21 CFR 101, Food Labeling, and 9 CFR 317, Subpart B, Nutrition Labeling; <sup>Pf</sup> [24] and

(G) for any salmonid fish containing canthaxanthin or astaxanthin as a color additive, the labeling of the bulk fish container, including a list of ingredients, displayed on the retail container or by other written means, such as a counter card, that discloses the use of canthaxanthin or astaxanthin. [41]

(3) Bulk food that is available for consumer self-dispensing shall be prominently labeled with the following information in plain view of the consumer: [41]



**§228.79 (a)(3)(A)**

**§228.80 (b)(2)**

(A) the manufacturer's or processor's label that was provided with the food; [41] or

(B) a card, sign, or other method of notification that includes the information specified under paragraph (2)(A), (B), and (F) of this subsection. [41]

(4) Bulk, unpackaged foods such as bakery products and unpackaged foods that are portioned to consumer specification need not be labeled if: [41]

(A) a health, nutrient content, or other claim is not made; [41]

(B) the food is manufactured or prepared on the premises of the food establishment or at another food establishment or a food processing plant that is owned by the same person and is regulated by the food regulatory agency that has jurisdiction. [41]

(b) Other forms of information.

(1) If required by law, consumer warnings shall be provided. <sup>Pf</sup> [26]

(2) Food establishment or manufacturers' dating information on foods may not be concealed or altered. [41]

**§228.80. Consumer Advisory.**

(a) Consumption of Animal Foods that are Raw, Undercooked, or Not Otherwise Processed to Eliminate Pathogens. Except as specified in section §228.71(a)(3) and (a)(4)(D) and under §228.82(3) of this title, if an animal food such as beef, eggs, fish, lamb, milk, pork, poultry, or shellfish is served or sold raw, undercooked, or without otherwise being processed to eliminate pathogens, either in ready-to-eat form or as an ingredient in another ready-to-eat food, the permit holder shall inform consumers of the significantly increased risk of consuming such foods by way of a disclosure and reminder, as specified in subsections (b) and (c) of this section, using brochures, deli case or menu advisories, label statements, table tents, placards, or other effective written means. <sup>Pf</sup> [26]

(b) Disclosure shall include:

(1) a description of the animal-derived foods, such as "oysters on the half shell (raw oysters)," "raw-egg Caesar salad," and "hamburgers (can be cooked to order)," <sup>Pf</sup> [26] or

(2) identification of the animal-derived foods by asterisking them to a footnote that states that the items are served raw or undercooked, or contain (or may contain) raw or undercooked ingredients. <sup>Pf</sup> [26]

**§228.80 (c)**

**§228.82 (1)(B)**

(c) Reminder shall include asterisking the animal-derived foods requiring disclosure to a footnote that states:

(1) regarding the safety of these items, written information is available upon request; <sup>Pf</sup> [26]

(2) consuming raw or undercooked meats, poultry, seafood, shellfish, or eggs may increase your risk of foodborne illness; <sup>Pf</sup> [26] or

(3) consuming raw or undercooked meats, poultry, seafood, shellfish, or eggs may increase your risk of foodborne illness, especially if you have certain medical conditions. <sup>Pf</sup> [26]

§228.81. Contaminated Food, Disposition. Discarding or reconditioning unsafe, adulterated, contaminated food.

(1) A food that is unsafe, adulterated, or not honestly presented as specified under §228.61 of this title shall be reconditioned according to an approved procedure or discarded. <sup>P</sup> [11]

(2) Food that is not from an approved source as specified under §228.62(a)-(g) of this title shall be discarded. <sup>P</sup> [7]

(3) Ready-to-eat food that may have been contaminated by an employee who has been restricted or excluded as specified under §228.36 of this title (relating to Management and Personnel) shall be discarded. <sup>P</sup> [11]

(4) Food that is contaminated by food employees, consumers, or other persons through contact with their hands, bodily discharges, such as nasal or oral discharges, or other means shall be discarded. <sup>P</sup> [11]

§228.82. Additional Safeguards, Special Requirements for Serving Highly Susceptible Populations.

Pasteurized foods and prohibited re-service, and prohibited food. In a food establishment that serves a highly susceptible population:

(1) The following criteria shall apply to juice:

(A) for the purposes of this paragraph only, children who are age nine or less and receive food in a school, day care setting or similar facility that provides custodial care are included as highly susceptible populations;

(B) prepackaged juice or a prepackaged beverage containing juice, that bears a warning label as specified in 21 CFR §101.17(g), Food Labeling, warning, notice, and

**§228.82 (1)(B)**

**§228.82 (6)(B)**

safe handling requirements, juices that have not been specifically processed to prevent, reduce, or eliminate the presence of pathogens, or a packaged juice or beverage containing juice, that bears a warning label as specified under §228.74(b) of this title may not be served or offered for sale; <sup>P</sup> [16] and

(C) unpackaged juice that is prepared on the premises for service or sale in a ready-to-eat form shall be processed under a HACCP plan that contains the information specified in §228.244(d)(2)-(5) of this title, and as specified under 21 CFR 120, Hazard Analysis And Critical Control Point (HACCP) Systems, §120.24, Process Controls; <sup>P</sup> [16]

(2) pasteurized eggs or egg products shall be substituted for raw eggs in the preparation of: <sup>P</sup> [16]

(A) foods such as Caesar salad, hollandaise or béarnaise sauce, mayonnaise, eggnog, ice cream, and egg-fortified beverages; <sup>P</sup> [16] and

(B) except as specified in paragraph (6) of this subsection, recipes in which more than one egg is broken and the eggs are combined; <sup>P</sup> [16]

(3) the following foods may not be served or offered for sale in a ready-to-eat form: <sup>P</sup> [16]

(A) raw animal foods such as raw fish, raw-marinated fish, raw molluscan shellfish, and steak tartar; <sup>P</sup> [16]

(B) a partially cooked animal food such as lightly cooked fish, rare meat, soft-cooked eggs that are made from raw shell eggs, and meringue; <sup>P</sup> [16] and

(C) raw seed sprouts; <sup>P</sup> [16]

(4) food employees may not contact ready-to-eat food as specified under §228.65(a)(2) and (5) of this title; <sup>P</sup> [16]

(5) time only, as the public health control as specified under §228.75(i)(4) of this title, may not be used for raw eggs; <sup>P</sup> [16]

(6) paragraph (2)(B) of this subsection does not apply if:

(A) the raw eggs are combined immediately before cooking for one consumer's serving at a single meal, cooked as specified under §228.71(a)(1)(A) of this title, and served immediately, such as an omelet, soufflé, or scrambled eggs;

(B) the raw eggs are combined as an ingredient immediately before baking and the eggs are thoroughly cooked to a ready-to-eat form, such as a cake, muffin, or bread; or

**§228.82 (6)(C)**

**§228.83 (a)**

(C) the preparation of the food is conducted under a HACCP plan that:

- (i) identifies the food to be prepared;
- (ii) prohibits contacting ready-to-eat food with bare hands;
- (iii) includes specifications and practices that ensure:

(I) *Salmonella enteritidis* growth is controlled before and after cooking; and

(II) *Salmonella enteritidis* is destroyed by cooking the eggs according to the temperature and time specified in section §228.71(a)(1)(B) of this subchapter;

(iv) contains the information specified under §228.244(d)(4) of this title (relating to Compliance) including procedures that:

(I) control cross contamination of ready-to-eat food with raw eggs; and

(II) delineate cleaning and sanitization procedures for food-contact surfaces; and

(v) describes the training program that ensures that the food employee responsible for the preparation of the food understands the procedures to be used;

(7) except as specified in paragraph (8) of this subsection, food may be re-served as specified under §228.70(d)(2)(A) and (B) of this title; and

(8) food may not be re-served under the following conditions:

(A) any food served to patients or clients who are under contact precautions in medical isolation or quarantine, protective environmental isolation may not be reserved to others outside.

(B) packages of food from any patients, client, or other consumers should not be re-served to persons in protective environment isolation.

**§228.83. Donation of Foods.**

(a) Previous service. Foods which have been previously served to a consumer may not be donated. <sup>P</sup> [11]

**§228.83 (b)**

**§228.101 (a)(2)**

(b) Time/temperature controlled for safety foods. A time/temperature control for safety food may be donated if:

(1) the food has been kept at or above 57 degrees Celsius (135 degree Fahrenheit) during hot holding and service, and subsequently refrigerated to meet the time and temperature requirements under §228.75(d) and (e) of this title; <sup>P</sup> [11]

(2) the donor can substantiate that the food recipient has the facilities to meet the transportation, storage, and reheating requirements of these rules; <sup>P</sup> [11]

(3) the temperature of the food is at or below 5 degrees Celsius (41 degrees Fahrenheit) at the time of donation, and is protected from contamination; <sup>P</sup> [11] and

(4) if the food is to be transported by the recipient directly to a consumer, the recipient need meet only the transportation requirements, including holding temperatures, under these rules. <sup>P</sup> [11]

(c) Labeling. Donated foods shall be labeled with the name of the food, the source of the food, and the date of preparation. <sup>P</sup> [11]

(d) Shelf life. Donated time/temperature controlled for safety foods may not exceed the shelf life for leftover foods outlined in these rules. <sup>P</sup> [11]

(e) Damaged foods. Heavily rim or seam-dented canned foods, or packaged foods without the manufacturer's complete labeling, shall not be donated. <sup>P</sup> [11]

(f) Distressed foods. Foods which are considered distressed, such as foods which have been subjected to fire, flooding, excessive heat, smoke, radiation, other environmental contamination, or prolonged storage shall not be directly donated for consumption by the consumer. Such foods may be sold or donated to a licensed food salvage establishment if permitted under the provisions of the Health and Safety Code, Chapter 432. <sup>P</sup> [11]

**Subchapter D. Equipment, Utensils, and Linens.**

**§228.101. Multiuse Materials.**

(a) Characteristics. Materials that are used in the construction of utensils and food-contact surfaces of equipment may not allow the migration of deleterious substances or impart colors, odors, or tastes to food and under normal use conditions shall be: <sup>P</sup> [18]

(1) safe; <sup>P</sup> [18]

(2) durable, corrosion-resistant, and nonabsorbent; <sup>Pf</sup> [32]

**§228.101 (a)(3)**

**§228.101 (e)**

(3) sufficient in weight and thickness to withstand repeated warewashing; <sup>Pf</sup> [32]

(4) finished to have a smooth, easily cleanable surface; <sup>Pf</sup> [32] and

(5) resistant to pitting, chipping, crazing, scratching, scoring, distortion, and decomposition. <sup>Pf</sup> [32]

(b) Cast iron, use limitation.

(1) Except as specified in paragraphs (2) and (3) of this subsection, cast iron may not be used for utensils or food-contact surfaces of equipment. <sup>Pf</sup> [32]

(2) Cast iron may be used as a surface for cooking.

(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.

(c) Lead, use limitation.

(1) Ceramic, china, 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 in the following table: <sup>P</sup> [18]

Figure: 25 TAC §228.101(c)(1)

(2) Pewter alloys containing lead in excess of 0.05% may not be used as a food-contact surface. <sup>P</sup> [18]

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

(d) Copper, use limitation.

(1) Except as specified in paragraph (2) of this subsection, copper and copper alloys such as brass may not be used in contact with a food that has a pH below 6 such as vinegar, fruit juice, or wine or for a fitting or tubing installed between a backflow prevention device and a carbonator. <sup>P</sup> [18]

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

(e) Galvanized metal, use limitation. Galvanized metal may not be used for utensils or food-contact surfaces of equipment that are used in contact with acidic food. <sup>P</sup> [18]

**§228.101 (f)**

(f) Sponges, use limitation. Sponges may not be used in contact with cleaned and sanitized or in-use food-contact surfaces. <sup>Pf</sup> [32]

(g) Wood, use limitation.

(1) Except as specified in paragraphs (2) - (4) of this subsection, wood and wood wicker may not be used as a food-contact surface. <sup>Pf</sup> [32]

(2) Hard close-grained wood; such as but not limited to maple, walnut, mahogany, bamboo, and pecan; may be used for:

(A) cutting boards; cutting blocks; bakers' tables; and utensils such as rolling pins, doughnut dowels, salad bowls, chopsticks and wooden-skewers; and

(B) wooden paddles used in confectionery operations for pressure scraping kettles when manually preparing confections at a temperature of 110 degrees Celsius (230 degrees Fahrenheit) or above.

(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.

(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.

(h) Nonstick coatings use limitation. 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. [39]

(i) Nonfood-contact surfaces. 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. [42]

Figure: 25 TAC §228.101(c)(1)

Utensil Category	Description	Maximum Lead mg/L
Beverage Mugs, Cups, Pitchers	Coffee Mugs	0.5
Large Hollowware (excluding pitchers)	Bowls greater than or equal to 1.1 L (1.16 QT)	1
Small Hollowware (excluding cups and mugs)	Bowls < 1.1 L (1.16 QT)	2.0
Flat Utensils & Tableware	Plates, Saucers	3.0

§228.102. Single-service and Single-use, Characteristics.

Materials that are used to make single-service and single-use articles:

(1) may not:

(A) allow the migration of deleterious substances; <sup>P</sup> [18] or

(B) impart colors, odors, or tastes to food; <sup>P</sup> [18] and

(2) shall be:

(A) safe; <sup>P</sup> [18] and

(B) clean.

§228.103. Durability and Strength.

(a) Equipment and utensils. Equipment and utensils shall be designed and constructed to be durable and to retain their characteristic qualities under normal use conditions. <sup>Pf</sup> [32]

(b) Food temperature measuring devices. Food temperature measuring device may 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. <sup>Pf</sup> [29]

§228.104. Cleanability.



**§228.104 (a)**

**§228.104 (d)**

(a) Food-contact surfaces. Multiuse food-contact surfaces shall be:

- (1) smooth; <sup>Pf</sup> [32]
- (2) free of breaks, open seams, cracks, chips, inclusions, pits, and similar imperfections; <sup>Pf</sup> [32]
- (3) free of sharp internal angles, corners, and crevices; <sup>Pf</sup> [32]
- (4) finished to have smooth welds and joints; <sup>Pf</sup> [32] and
- (5) except as specified in subsection (b) of this section, accessible for cleaning and inspection by one of the following methods:

- (A) without being disassembled; <sup>Pf</sup> [32]
- (B) by disassembling without the use of tools; <sup>Pf</sup> [32] 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. <sup>Pf</sup> [32]

(b) Subsection (a)(5) of this section does not apply to cooking oil storage tanks, distribution lines for cooking oils, or beverage syrup lines or tubes.

(c) Cleaned in place (CIP) equipment.

(1) CIP equipment shall meet the characteristics specified under subsection (a) of this section 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; <sup>Pf</sup> [32] and
- (B) the system is self-draining or capable of being completely drained of cleaning and sanitizing solutions; [39] and

(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. [39]

(d) “V” threads, use limitation. Except for hot oil cooking or filtering equipment, “V” type threads may not be used on food-contact surfaces. <sup>Pf</sup> [32]

**§228.104 (e)**

**§228.105 (b)(2)**

(e) Hot oil filtering equipment. Hot oil filtering equipment shall meet the characteristics specified under subsections (a) or (b) of this section and shall be readily accessible for filter replacement and cleaning of the filter. <sup>Pf</sup> [32]

(f) Can openers. Cutting or piercing parts of can openers shall be readily removable for cleaning and for replacement. <sup>Pf</sup> [32]

(g) Nonfood-contact surfaces. Nonfood-contact surfaces shall be free of unnecessary ledges, projections, and crevices, and designed and constructed to allow easy cleaning and to facilitate maintenance. <sup>Pf</sup> [32]

(h) Kick plates, removable. Kick plates shall be designed so that the areas behind them are accessible for inspection and cleaning by being:

(1) removable by one of the methods specified under subsection (a)(5) of this subsection or capable of being rotated open; [42] and

(2) removable or capable of being rotated open without unlocking equipment doors. [42]

(i) Ventilation hood systems, filters. 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. [42]

§228.105. Accuracy of Temperature Measuring Devices.

(a) Temperature measuring device, food.

(1) Food temperature measuring device that are scaled only in Celsius or dually scaled in Celsius and Fahrenheit shall be accurate to  $\pm 1$  degrees Celsius in the intended range of use. <sup>Pf</sup> [29]

(2) Food temperature measuring device that are scaled only in Fahrenheit shall be accurate to  $\pm 2$  degrees Fahrenheit in the intended range of use. <sup>Pf</sup> [29]

(b) Temperature measuring devices, ambient air and water.

(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  $\pm 1.5$  degrees Celsius in the intended range of use. <sup>Pf</sup> [29]

(2) Ambient air and water temperature measuring devices that are scaled only in Fahrenheit shall be accurate to  $\pm 3$  degrees Fahrenheit in the intended range of use. <sup>Pf</sup> [29]

**§228.105 (c)**

**§228.106 (c)(2)**

(c) Pressure measuring devices, mechanical warewashing equipment. 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  $\pm 14$  kilopascals ( $\pm 2$  pounds per square inch) in the range indicated on the manufacturer's data plate.

§228.106. Functionality of Equipment.

(a) Ventilation hood systems, drip prevention. 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. [43]

(b) Equipment openings, closures and deflectors.

(1) A cover or lid for equipment shall overlap the opening and be sloped to drain. Pf [32]

(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 5 millimeters (two-tenths of an inch). Pf [32]

(3) Except as specified under paragraph (4) of this subsection, fixed piping, temperature measuring device, rotary shafts, and other parts extending into equipment shall be provided with a watertight joint at the point where the item enters the equipment. Pf [32]

(4) If a watertight joint is not provided:

(A) the piping, temperature measuring device, 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; [37] and

(B) the opening shall be flanged as specified under paragraph (2) of this subsection. [37]

(c) Dispensing equipment, protection of equipment and food. In equipment that dispenses or vends liquid food or ice in unpackaged form: [37]

(1) 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; [37]

(2) the delivery tube, chute, and orifice shall be protected from manual contact such as by being recessed; [37]

**§228.106 (c)(3)**

**§228.106 (e)**

(3) the delivery tube or chute and orifice of 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: [37]

(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; [37] or

(B) available for self-service during hours when it is not under the full-time supervision of a food employee; [37] and

(4) 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. [37]

(5) dispensing equipment in which time/temperature control for safety (TCS) food in a homogenous liquid form is maintained outside of the temperature control requirements as specified under §228.75(f)(1) of this title shall:

(A) be specifically designed and equipped to maintain the commercial sterility of aseptically packaged food in a homogenous liquid form for a specified duration from the time of opening the packaging within the equipment; <sup>Pf</sup>[32] and

(B) conform to the requirements for this equipment as specified in NSF/ANSI 18-2006- manual food and beverage dispensing equipment. <sup>Pf</sup>[32]

(d) Vending machine, vending stage closure. The dispensing compartment of a vending machine including a machine that is designed to vend prepackaged snack food that are not time/temperature control for safety (TCS) foods such as chips, party mixes, and pretzels shall be equipped with a self-closing door or cover if the machine is:

(1) 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; [39] or

(2) available for self-service during hours when it is not under the full-time supervision of a food employee. [39]

(e) Bearings and gear boxes, leak-proof. 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. [37]

**§228.106 (f)**

**§228.106 (k)**

(f) Beverage tubing, separation. Except for cold plates that are constructed integrally with an ice storage bin, beverage tubing and cold-plate beverage cooling devices may not be installed in contact with stored ice. [37]

(g) Ice units, separation of drains. Liquid waste drain lines may not pass through an ice machine or ice storage bin. [37]

(h) Condenser unit, separation. 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. [37]

(i) Can openers on vending machines. Cutting or piercing parts of can openers on vending machines shall be protected from manual contact, dust, insects, rodents, and other contamination.[37]

(j) Molluscan shellfish tanks.

(1) Except as specified under paragraph (2)(B) of this subsection, molluscan shellfish life support system display tanks may 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. <sup>P</sup> [9]

(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 HACCP plan that: <sup>Pf</sup> [25]

(A) is submitted by the permit holder and approved by the regulatory authority as specified under §228.243(b) of this title (relating to Compliance and Enforcement); <sup>Pf</sup> [25] and

(B) ensures that:

(i) water used with fish other than molluscan shellfish does not flow into the molluscan tank; <sup>Pf</sup> [25]

(ii) the safety and quality of the shellfish as they were received are not compromised by the use of the tank; <sup>Pf</sup> [25] and

(iii) the identity of the source of the shellstock is retained as specified under §228.64(e) of this title; <sup>Pf</sup> [25]

(k) Vending machines, automatic shutoff.

**§228.106 (k)(1)**

**§228.106 (n)**

(1) A machine vending time/temperature control for safety (TCS) 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 under Subchapter D of this chapter; <sup>P</sup> [2] and

(B) if a condition specified under subparagraph (A) of this paragraph occurs, until the machine is serviced and restocked with food that has been maintained at temperatures specified under Subchapter D of this chapter. <sup>P</sup> [8]

(2) When the automatic shutoff within a machine vending time/temperature control for safety (TCS) food:

(A) in a refrigerated vending machine, the ambient air temperature may not exceed 5 degrees Celsius (41 degrees Fahrenheit) for more than 30 minutes immediately after the machine is filled, serviced, or restocked; <sup>P</sup> [2] or

(B) in a hot holding vending machine, the ambient air temperature may not be less than 57 degrees Celsius (135 degrees Fahrenheit) for more than 120 minutes immediately after the machine is filled, serviced, or restocked. <sup>P</sup> [3]

(1) 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. <sup>Pf</sup> [29]

(2) Except as specified in paragraph (3) of this subsection, cold or hot holding equipment used for time/temperature control for safety (TCS) 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. <sup>Pf</sup> [29]

(3) Paragraph (2) of this subsection 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. <sup>Pf</sup> [29]

(5) Food temperature measuring devices and water temperature measuring device on warewashing machines shall have a numerical scale, printed record, or digital readout in

**§228.106 (l)(5)**

**§228.106 (q)(1)**

increments no greater than 1 degrees Celsius or 2 degrees Fahrenheit in the intended range of use. <sup>Pf</sup> [29]

(m) Warewashing machine, data plate operating specifications. 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:

(1) temperatures required for washing, rinsing, and sanitizing; <sup>Pf</sup> [33]

(2) pressure required for the fresh water sanitizing rinse unless the machine is designed to use only a pumped sanitizing rinse; <sup>Pf</sup> [33] and

(3) conveyor speed for conveyor machines or cycle time for stationary rack machines. <sup>Pf</sup> [33]

(n) Warewashing machines, internal baffles. 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. <sup>Pf</sup> [33]

(o) Warewashing machines, temperature measuring devices. 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; <sup>Pf</sup> [29] and

(2) as the water enters the hot water sanitizing final rinse manifold or in the chemical sanitizing solution tank. <sup>Pf</sup> [29]

(p) Manual warewashing equipment, heaters and baskets. 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 77 degrees Celsius (171 degrees Fahrenheit ); <sup>Pf</sup> [33] and

(2) provided with a rack or basket to allow complete immersion of equipment and utensils into the hot water. <sup>Pf</sup> [33]

(q) Warewashing machines, automatic dispensing of detergents and sanitizers. A warewashing machine that is installed after adoption of these rules by the regulatory authority, shall be equipped to:

(1) automatically dispense detergents and sanitizers; <sup>Pf</sup> [33] and

**§228.106 (q)(2)**

**§228.106 (u)(3)**

(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. <sup>Pf</sup> [33]

(r) 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; <sup>Pf</sup> [33] 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 6.4 millimeter or one-fourth inch Iron Pipe Size (IPS) valve. <sup>Pf</sup> [33]

(3) Paragraphs (1) and (2) of this subsection do not apply to a machine that uses only a pumped or recirculated sanitizing rinse.

(s) Warewashing sinks and drainboards, self-draining. Sinks and drainboards of warewashing sinks and machines shall be self-draining. <sup>Pf</sup> [33]

(t) Equipment compartments, drainage. 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. [39]

(u) 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. [44]

(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; [44] and

(B) equipped with an automatic shutoff device that will place the machine out of operation before the waste receptacle overflows. [44]

(3) Shutoff devices specified under paragraph (2)(B) of this subsection 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. [44]



**§228.106 (v)**

**§228.107 (b)(1)**

(v) Case lot handling equipment, movability. 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. [39]

(w) 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 1.5 millimeters or one-sixteenth inch by: [39]

(A) being covered with louvers, screens, or materials that provide an equivalent opening of not greater than 1.5 millimeters or one-sixteenth inch. Screening of 12 or more mesh to 2.5 centimeters (12 mesh to 1 inch) meets this requirement; [39]

(B) being effectively gasketed; [39]

(C) having interface surfaces that are at least 13 millimeters or one-half inch wide; [39] or

(D) jambs or surfaces used to form an L-shaped entry path to the interface. [39]

(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. [39]

(x) Acceptability. Food equipment certification, classification. Food equipment that is certified or classified for sanitation by an American National Standards Institute (ANSI)-accredited certification program is deemed to comply with §§228.101-228.106 of this title.

**§228.107. Equipment, Numbers and Capacities.**

(a) Cooling, heating, and holding capacities. 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 under Subchapter C of this chapter (relating to Food).<sup>Pf</sup> [27]

(b) Manual warewashing, sink compartment requirements.

(1) Except as specified in paragraph (3) of this subsection, a sink with at least three compartments shall be provided for manually washing, rinsing, and sanitizing equipment and utensils.<sup>Pf</sup> [33]

**§228.107 (b)(2)**

**§228.107 (b)(4)(B)(iii)**

(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) of this subsection shall be used. <sup>Pf</sup> [33]

(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-compartment sinks as specified under paragraphs (4) and (5) of this subsection; or

(F) receptacles that substitute for the compartments of a multi-compartment sink.

(4) Before a two-compartment sink is used:

(A) The permit holder shall have its use approved by the regulatory authority; <sup>Pf</sup> [33] and

(B) the permit holder shall limit the number of kitchenware items cleaned and sanitized in the two-compartment sink, and shall limit warewashing 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 shall:

(i) make up the cleaning and sanitizing solutions immediately before use and drain them immediately after use; <sup>Pf</sup> [33] and

(ii) use a detergent-sanitizer to sanitize and apply the detergent-sanitizer in accordance with the manufacturer's label instructions and as specified under §228.111(o) of this title; <sup>Pf</sup> [33] or

(iii) use a hot water sanitization immersion step as specified under §228.115(f)(3) of this title. <sup>Pf</sup> [33]

**§228.107 (b)(5)**

**§228.108 (d)(2)**

(5) A two-compartment sink may 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. <sup>Pf</sup> [33]

(c) Drainboards. 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. <sup>Pf</sup> [33]

(d) Ventilation hood systems, adequacy. Ventilation hood systems and devices shall be sufficient in number and capacity to prevent grease or condensation from collecting on walls and ceilings. [43]

(e) Clothes washers and dryers.

(1) Except as specified in paragraph (2) of this subsection, if work clothes or linens are laundered on the premises, a mechanical clothes washer and dryer shall be provided and used. [45]

(2) If on-premises laundering is limited to wiping cloths intended to be used moist, or wiping cloths are air-dried as specified under §228.122(a)(2) of this title, a mechanical clothes washer and dryer need not be provided. [45]

**§228.108. Utensils, Temperature Measuring Devices, and Testing Devices.**

(a) Utensils, consumer self-service. A food dispensing utensil shall be available for each container displayed at a consumer self-service unit such as a buffet or salad bar. [39]

(b) Food temperature measuring devices. Food temperature measuring device shall be provided and readily accessible for use in ensuring attainment and maintenance of food temperatures as specified under Subchapter C of this chapter (relating to Food). <sup>Pf</sup> [29]

(c) 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. <sup>Pf</sup> [29]

(d) Temperature measuring devices, manual and mechanical warewashing.

(1) In manual warewashing operations, a temperature measuring device shall be provided and readily accessible for frequently measuring the washing and sanitizing temperatures. <sup>Pf</sup> [29]

(2) In hot water mechanical warewashing operations, an irreversible registering temperature indicator shall be provided and readily accessible for measuring the utensil surface temperature. <sup>Pf</sup> [29]

**§228.108 (e)**

**§228.110 (a)(1)(A)**

(e) Sanitizing solutions, testing devices. A test kit or other device that accurately measures the concentration in mg/L of sanitizing solutions shall be provided. <sup>Pf</sup> [29]

§228.109. Location and Installation, Equipment, Clothes Washers and Dryers, and Storage Cabinets, Contamination Prevention.

(a) Except as specified in subsection (b) of this section, 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:

(1) in locker rooms; [45]

(2) in toilet rooms; [45]

(3) in garbage rooms; [45]

(4) in mechanical rooms; [45]

(5) under sewer lines that are not shielded to intercept potential drips; [45]

(6) under leaking water lines including leaking automatic fire sprinkler heads or under lines on which water has condensed; [45]

(7) under open stairwells; [45] or

(8) under other sources of contamination. [45]

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

(c) Clothes washer and dryer location requirements. 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, utensils, and linens; and unwrapped single-service and single-use articles. [45]

§228.110. Installation.

(a) 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; [39]

**§228.110 (a)(1)(B)**

**§228.110 (b)(2)(B)**

(B) spaced from adjoining equipment, walls, and ceilings a distance of not more than one millimeter or one thirty-second inch; [39] or

(C) sealed to adjoining equipment or walls, if the equipment is exposed to spillage or seepage. [39]

(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 to the table; [39] or

(B) elevated on legs as specified under subsection (b)(4) of this subsection. [39]

(b) Fixed equipment, elevation or sealing.

(1) Except as specified in paragraphs (2) and (3) of this subsection, floor-mounted equipment that is not easily movable shall be sealed to the floor or elevated on legs that provide at least a 15-centimeter (6-inch) clearance between the floor and the equipment. <sup>Pf</sup> [32]

(2) If no part of the floor under the floor-mounted equipment is more than 15 centimeters (6 inches) from the point of cleaning access, the clearance space may be only 10 centimeters (4 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) of this subsection, counter-mounted equipment that is not easily movable shall be elevated on legs that provide at least a 10-centimeter (4-inch) clearance between the table and the equipment. [39]

(5) The clearance space between the table and counter-mounted equipment may be:

(A) 7.5 centimeters (3 inches) if the horizontal distance of the table top under the equipment is no more than 50 centimeters (20 inches) from the point of access for cleaning; or

(B) 5 centimeters (2 inches) if the horizontal distance of the table top under the equipment is no more than 7.5 centimeters (3 inches) from the point of access for cleaning.

**§228.111**

**§228.111 (f)**

§228.111. Equipment, 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 under §228.101-228.106 of this title. [39]

(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. [39]

(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. [39]

(b) Cutting surfaces. 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. [39]

(c) Microwave ovens. Microwave ovens shall meet the safety standards specified in 21 CFR §1030.10, Microwave Ovens. [39]

(d) Warewashing equipment, cleaning frequency. 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 under §228.107(c) of this title shall be cleaned: <sup>Pf</sup>

(1) before use; <sup>Pf</sup> [33]

(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; <sup>Pf</sup> [33] and

(3) if used, at least every 24 hours. <sup>Pf</sup> [33]

(e) 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. <sup>Pf</sup> [33]

(2) A warewashing machine's conveyor speed or automatic cycle times shall be maintained accurately timed in accordance with manufacturer's specifications. <sup>Pf</sup> [33]

(f) Warewashing sinks, use limitation.

**§228.111 (f)(1)**

**§228.111 (j)(2)**

(1) A warewashing sink may not be used for handwashing as specified under §228.38(e) of this title (relating to Management and Personnel) or dumping mop water. [46]

(2) If a warewashing sink is used to wash wiping cloths, wash produce, or thaw food, the sink shall be cleaned as specified under subsection (d) of this section 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 under §228.116 - 228.118 of this title before and after using the sink to wash produce or thaw food. <sup>Pf</sup> [33]

(g) Warewashing equipment, cleaning agents. When used for warewashing, the wash compartment of a sink, mechanical warewasher, or wash receptacle of alternative manual warewashing equipment as specified in §228.107(b)(3) of this title, 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. <sup>Pf</sup> [33]

(h) Warewashing equipment, clean solutions. The wash, rinse, and sanitize solutions shall be maintained clean. <sup>Pf</sup> [33]

(i) Manual warewashing equipment, wash solution temperature. The temperature of the wash solution in manual warewashing equipment shall be maintained at not less than 43 degrees Celsius (110 degrees Fahrenheit) or the temperature specified on the cleaning agent manufacturer's label instructions. <sup>Pf</sup> [33]

(j) 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, 74 degrees Celsius (165 degrees Fahrenheit); <sup>Pf</sup> [33]

(B) for a stationary rack, dual temperature machine, 66 degrees Celsius (150 degrees Fahrenheit); <sup>Pf</sup> [33]

(C) for a single tank, conveyor, dual temperature machine, 71 degrees Celsius (160 degrees Fahrenheit); <sup>Pf</sup> [33] or

(D) for a multitank, conveyor, multitemperature machine, 66 degrees Celsius (150 degrees Fahrenheit). <sup>Pf</sup> [33]

(2) The temperature of the wash solution in spray-type warewashers that use chemicals to sanitize may not be less than 49 degrees Celsius (120 degrees Fahrenheit). <sup>Pf</sup> [33]

**§228.111 (k)**

**§228.111 (n)(2)(A)**

(k) Manual warewashing equipment, hot water sanitization temperatures. If immersion in hot water is used for sanitizing in a manual operation, the temperature of the water shall be maintained at 77 degrees Celsius (171 degrees Fahrenheit) or above. <sup>P</sup> [10]

(l) Mechanical warewashing equipment, hot water sanitization temperatures.

(1) Except as specified in paragraph (2) of this subsection, in a mechanical operation, the temperature of the fresh hot water sanitizing rinse as it enters the manifold may not be more than 90 degrees Celsius (194 degrees Fahrenheit ), or less than: <sup>Pf</sup> [33]

(A) for a stationary rack, single temperature machine, 74 degrees Celsius (165 degrees Fahrenheit ); <sup>Pf</sup> [33] or

(B) for all other machines, 82 degrees Celsius (180 degrees Fahrenheit ). <sup>Pf</sup> [33]

(2) The maximum temperature specified under paragraph (1) of this subsection, 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.

(m) Mechanical warewashing equipment, sanitization pressure. 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 specified on the machine manufacturer's data plate and may not be less than 35 kilopascals (5 pounds per square inch) or more than 200 kilopascals (30 pounds per square inch). <sup>Pf</sup> [33]

(n) Manual and mechanical warewashing equipment, chemical sanitization temperature, pH, concentration, and hardness. A chemical sanitizer used in a sanitizing solution for a manual or mechanical operation at contact times specified under §228.118(c) of this title shall be meet the criteria in §228.206(a) of this title (relating to Chemicals) shall be used in accordance with the EPA-approved manufacturer's label use instructions, <sup>P</sup> [10] 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 the following chart; <sup>P</sup> [10]

Figure: 25 TAC §228.111(n)(1)

(2) an iodine solution shall have a:

(A) minimum temperature of 20 degrees Celsius (68 degrees Fahrenheit); <sup>P</sup> [10]



**§228.111 (n)(2)(B)**

**§228.111 (o)**

(B) pH of 5.0 or less or a pH no higher than the level for which the manufacturer specifies the solution is effective;<sup>P</sup> [10] and

(C) concentration between 12.5 mg/L and 25 mg/L;<sup>P</sup> [10]

(3) a quaternary ammonium compound solution shall:

(A) have a minimum temperature of 24 degrees Celsius (75 degrees Fahrenheit);<sup>P</sup> [10]

(B) have a concentration as specified under §228.206 of this title (relating to Chemicals) and as indicated by the manufacturer's use directions included in the labeling;<sup>P</sup> [10] 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 EPA-registered label use instructions.<sup>P</sup> [10]

(4) if another solution of a chemical specified under paragraphs (1)-(3) of this subsection is used, the permit holder shall demonstrate to the regulatory authority that the solution achieves sanitization and the use of the solution shall be approved;<sup>P</sup> [10] 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.<sup>P</sup> [10]

(6) if a chemical sanitizer is generated by a device located on-site at the food establishment it shall be used as specified in paragraphs (1) - (4) of this subsection and shall be produced by a device that:

(A) complies with regulation as specified in §§2(q)(1) and 12 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA),<sup>P</sup> [18]

(B) complies with 40 CFR 152.500 requirement for devices and 40 CFR 156.10 labeling requirements,<sup>P</sup> [18]

(C) displays the EPA device manufacturing facility registration number on the device,<sup>Pf</sup> [25] and

(D) is operated and maintained in accordance with manufacturer's instructions.<sup>Pf</sup> [25]

(o) Manual warewashing equipment, chemical sanitization using detergent-sanitizers. If a detergent-sanitizer is used to sanitize in a cleaning and sanitizing procedure where there is no

**§228.111 (o)**

**§228.112 (c)(1)**

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. <sup>Pf</sup> [33]

(p) Warewashing equipment, determining chemical sanitizer concentration. Concentration of the sanitizing solution shall be accurately determined by using a test kit or other device. <sup>Pf</sup> [29]

Figure: 25 TAC §228.111(n)(1)

Concentration Range	Minimum Temperature	
	<i>pH 10 or less</i> °C (°F )	<i>pH 8 or less</i> °C (°F )
25-49	49 (120)	49 (120)
50-99	38 (100)	24 (75)
100	13 (55)	13 (55)

§228.112. Utensils and Temperature and Pressure Measuring Devices.

(a) Good repair and calibration.

(1) Utensils shall be maintained in a state of repair or condition that complies with the requirements specified under §§228.101 - 228.106 of this title or shall be discarded. <sup>Pf</sup> [32]

(2) Food temperature measuring devices shall be calibrated in accordance with manufacturer's specifications as necessary to ensure their accuracy. <sup>Pf</sup> [29]

(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. <sup>Pf</sup> [29]

(b) Single-service and single-use articles, required use. A food establishment without facilities specified under §§228.113 – 228.118 of this title 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. <sup>P</sup> [10]

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

(1) Single-service and single-use articles may not be reused. [40]

**§228.112 (c)(2)**

**§228.114 (a)(2)**

(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. [40]

(d) Shells, use limitation. Mollusk and crustacea shells may not be used more than once as serving containers. [40]

§228.113. Cleaning of Equipment and Utensils.

Equipment, food-contact surfaces, nonfood-contact surfaces, and utensils.

(1) Equipment food-contact surfaces and utensils shall be clean to sight and touch.  
P [10]

(2) The food-contact surfaces of cooking equipment and pans shall be kept free of encrusted grease deposits and other soil accumulations. [39]

(3) Nonfood-contact surfaces of equipment shall be kept free of an accumulation of dust, dirt, food residue, and other debris. [42]

§228.114. Frequency of Cleaning.

(a) Equipment food-contact surfaces and utensils.

(1) Equipment food-contact surfaces and utensils shall be cleaned:

(A) except as specified in paragraph (2) of this subsection, before each use with a different type of raw animal food such as beef, fish, lamb, pork, or poultry; P [10]

(B) each time there is a change from working with raw foods to working with ready-to-eat foods; P [10]

(C) between uses with raw fruits and vegetables and with time/temperature control for safety (TCS) food; P [10]

(D) before using or storing a food temperature measuring device; P [10]  
and

(E) at any time during the operation when contamination may have occurred. P [10]

(2) Paragraph (1)(A) of this subsection does not apply if the food-contact surface or utensil is in contact with a succession of different raw meat and poultry each requiring a higher cooking temperature as specified under §228.71(a) of this title than the previous type.

**§228.114 (a)(3)**

**§228.114 (a)(4)(F)(iii)**

(3) Except as specified in paragraph (4) of this subsection, if used with time/temperature control for safety (TCS) food equipment food-contact surfaces and utensils shall be cleaned throughout the day at least every four hours. <sup>P</sup> [10]

(4) Surfaces of utensils and equipment contacting time/temperature control for safety (TCS) food may be cleaned less frequently than every four hours if:

(A) in storage, containers of time/temperature control for safety (TCS) food and their contents are maintained at temperatures specified under Subchapter C of these rules 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 and:

(i) the utensils and equipment are cleaned at the frequency in the following chart that corresponds to the temperature; and

Figure: 25 TAC §228.114(a)(4)(B)(i)

(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 time/temperature control for safety (TCS) food that is maintained at the temperatures specified under Subchapter C of these rules, are intermittently combined with additional supplies of the same food that is at the required temperature, and the containers are cleaned at least every 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 under Subchapter C of this chapter;

(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) the characteristics of the equipment and its use;

(ii) the type of food involved;

(iii) the amount of food residue accumulation; and

**§228.114 (a)(4)(F)(iv)**

**§228.114 (c)**

(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 57 degrees Celsius (135 degrees Fahrenheit) or more and the utensils and container are cleaned at least every 24 hours or at a frequency necessary to preclude accumulation of soil residues.

(5) Except when dry cleaning methods are used as specified under §228.115(a) of this title, surfaces of utensils and equipment contacting food that is not time/temperature control for safety shall be cleaned:

(A) at any time when contamination may have occurred; [39]

(B) at least every 24 hours for iced tea dispensers and consumer self-service utensils such as tongs, scoops, or ladles; [39]

(C) before restocking consumer self-service equipment and utensils such as condiment dispensers and display containers; [39] 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; [39] or

(ii) absent manufacturer specifications, at a frequency necessary to preclude accumulation of soil or mold. [39]

(b) Cooking and baking equipment.

(1) The food-contact surfaces of cooking and baking equipment shall be cleaned at least every 24 hours. This section does not apply to hot oil cooking and filtering equipment if it is cleaned as specified in subsection (a)(4)(F) of this section. [39]

(2) The cavities and door seals of microwave ovens shall be cleaned at least every 24 hours by using the manufacturer's recommended cleaning procedure. [39]

(c) Nonfood-contact surfaces. Nonfood-contact surfaces of equipment shall be cleaned at a frequency necessary to preclude accumulation of soil residues. [42]

Figure: 25 TAC §228.114(a)(4)(B)(i)

<b>Temperature</b>	<b>Cleaning Frequency</b>
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

§228.115. Methods of Cleaning.

(a) Dry cleaning.

(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 time/temperature control for safety (TCS) food. [39]

(2) Cleaning equipment used in dry cleaning food-contact surfaces may not be used for any other purpose. [39]

(b) Precleaning.

(1) Food debris on equipment and utensils shall be scrapped over a waste disposal unit or garbage receptacle or shall be removed in a warewashing machine with a prewash cycle. [39]

(2) If necessary for effective cleaning, utensils and equipment shall be preflushed, presoaked, or scrubbed with abrasives. [39]

(c) Loading of soiled items, warewashing machines. Soiled items to be cleaned in a warewashing machine shall be loaded into racks, trays, or baskets or onto conveyors in a position that:

(1) exposes the items to the unobstructed spray from all cycles; <sup>Pf</sup> [33] and

**§228.115 (c)(2)**

**§228.115 (f)(2)**

(2) allows the items to drain. <sup>Pf</sup> [33]

(d) Wet cleaning.

(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. <sup>Pf</sup> [33]

(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. <sup>Pf</sup> [33]

(e) Washing, procedures for alternative manual warewashing equipment. 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 §228.107(b)(3) of this title in accordance with the following procedures: <sup>Pf</sup> [33]

(1) equipment shall be disassembled as necessary to allow access of the detergent solution to all parts; <sup>Pf</sup> [33]

(2) equipment components and utensils shall be scrapped or rough cleaned to remove food particle accumulation; <sup>Pf</sup> [33] and

(3) equipment and utensils shall be washed as specified under subsection (d)(1) of this section. <sup>Pf</sup> [33]

(f) Rinsing procedures. 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: <sup>Pf</sup> [33]

(1) use of a distinct, separate water rinse after washing and before sanitizing if using: <sup>Pf</sup> [33]

(A) a three-compartment sink; <sup>Pf</sup> [33]

(B) alternative manual warewashing equipment equivalent to a three-compartment sink as specified in §228.107(b)(3) of this title; <sup>Pf</sup> [33] or

(C) a three-step washing, rinsing, and sanitizing procedure in a warewashing system for CIP equipment; <sup>Pf</sup> [33]

(2) use of a detergent-sanitizer as specified under §228.111(o) of this title;

**§228.115 (f)(2)(A)**

**§228.118 (3)**

(A) alternative warewashing equipment as specified in §228.107(b)(3) of this title that is approved for use with a detergent-sanitizer; <sup>Pf</sup> [33] or

(B) a warewashing system for CIP equipment; <sup>Pf</sup> [33]

(3) use of a nondistinct water rinse that is integrated in the hot water sanitization immersion step of a two-compartment sink operation; <sup>Pf</sup> [33]

(4) if using a warewashing machine that does not recycle the sanitizing solution as specified under paragraph (5) of this subsection, or alternative manual warewashing equipment such as sprayers, use of a nondistinct water rinse that is: <sup>Pf</sup> [33]

(A) integrated in the application of the sanitizing solution; <sup>Pf</sup> [33] and

(B) washed immediately after each application; <sup>Pf</sup> [33] or

(5) 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. <sup>Pf</sup> [33]

§228.116. Sanitization Objectives, Food-contact Surfaces and Utensils. Equipment food-contact surfaces and utensils shall be sanitized.

§228.117. Sanitization Frequency, Before Use After Cleaning. Utensils and food-contact surfaces of equipment shall be sanitized before use after cleaning. <sup>P</sup> [10]

§228.118. Sanitization Methods, Hot Water and Chemicals.

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

(1) hot water manual operations by immersion for at least 30 seconds and as specified under §228.111(k) of this title; <sup>P</sup> [10]

(2) hot water mechanical operations by being cycled through equipment that is set up as specified under §228.111(e), (l) and (m) of this title and achieving a utensil surface temperature of 71 degrees Celsius (160 degrees Fahrenheit) as measured by an irreversible registering temperature indicator; <sup>P</sup> [10] or

(3) 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 under §228.111(n) of this title by providing:



**§228.118 (3)(a)**

**§228.121 (b)**

(A) except as specified under paragraph (B) of this subsection, an exposure time of at least 10 seconds for a chlorine solution specified under §228.111(n)(1) of this title;<sup>P</sup> [10]

(B) a contact time of at least 7 seconds for a chlorine solution of 50 mg/L that has a pH of 10 or less and a temperature of at least 38 degrees Celsius (100 degrees Fahrenheit) or a pH of 8 or less and a temperature of at least 24 degrees Celsius (75 degrees Fahrenheit);<sup>P</sup> [10]

(C) a contact of at least 30 seconds for other chemical sanitizing solutions;  
<sup>P</sup> [10] or

(D) An exposure time used in relationship with a combination of temperature, concentration, and pH that, when evaluated for efficacy, yields sanitization as defined in §228.2(125) of this title (relating to Definitions).<sup>P</sup> [10]

§228.119. Laundering, Clean Linens. Clean linens shall be free from food residues and other soiling matter. [39]

§228.120. Laundering, Frequency, Specifications.

(a) Linens that do not come in direct contact with food shall be laundered between operations if they become wet, sticky, or visibly soiled. [39]

(b) Cloth gloves used as specified in §228.68(e)(4) of this title shall be laundered before being used with a different type of raw animal food such as beef, fish, lamb, pork or poultry. [39]

(c) Linens and napkins that are used as specified under §229.68(c) of this title and cloth napkins shall be laundered between each use. [39]

(d) Wet wiping cloths shall be laundered daily. [36]

(e) Dry wiping cloths shall be laundered as necessary to prevent contamination of food and clean serving utensils. [36]

§228.121. Laundering Methods.

(a) Storage of soiled linens. 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. [39]

(b) Mechanical washing.

**§228.121 (b)(1)**

**§228.123 (a)**

(1) Except as specified in paragraph (2) of this subsection, linens shall be mechanically washed. [39]

(2) In food establishments in which only wiping cloths are laundered as specified in §228.107(e)(2) of this title, 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 under §228.111(d) of this title. [36]

(c) Use of laundry facilities.

(1) Except as specified in paragraph (2) of this subsection, 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. [45]

(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.

§228.122. Drying, Equipment and Utensils.

(a) Equipment and utensils, air-drying required. After cleaning and sanitizing, equipment and utensils:

(1) shall be air-dried or used after adequate draining as specified in the first paragraph of 40 CFR §180.940, Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations (food-contact sanitizing solutions), before contact with food; [39] and

(2) may not be cloth dried except that utensils that have been air-dried may be polished with cloths that are maintained clean and dry. [39]

(b) Wiping cloths, air-drying locations. Wiping cloths laundered in a food establishment that does not have a mechanical clothes dryer as specified in §228.107(e)(2) of this title, 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 under §228.111(n) of this title. [36]

§228.123. Lubricating and Reassembling.

(a) Food-contact surfaces. Lubricants as specified under §228.207 of this title shall be applied to food-contact surfaces that require lubrication in a manner that does not contaminate food-contact surfaces. [37]

**§228.123 (b)**

**§228.124 (b)(1)(C)**

(b) Equipment. Equipment shall be reassembled so that food-contact surfaces are not contaminated. [37]

§228.124. Storage.

(a) Equipment, utensils, linens, and single-service and single-use articles.

(1) Except as specified in paragraph (4) of this subsection, cleaned equipment and utensils, laundered linens, and single-service and single-use articles shall be stored:

(A) in a clean, dry location; [39]

(B) where they are not exposed to splash, dust, or other contamination; [39] and

(C) at least 15 cm (6 inches) above the floor. [39]

(2) Clean equipment and utensils shall be stored as specified under paragraph (1) of this subsection and shall be stored:

(A) in a self-draining position that allows air drying; [39] and

(B) covered or inverted. [39]

(3) Single-service and single-use articles shall be stored as specified under subparagraph (A) of this paragraph and shall be kept in the original protective package or stored by using other means that afford protection from contamination until used. [40]

(4) Items that are kept in closed packages may be stored less than 15 cm (6 inches) above the floor on dollies, pallets, racks, and skids that are designed as specified under §228.106(v) of this title. [39]

(b) Prohibitions.

(1) Except as specified in paragraph (2) of this subsection, cleaned and sanitized equipment, utensils, laundered linens, and single-service and single-use articles may not be stored:

(A) in locker rooms; [39]

(B) in toilet rooms; [39]

(C) in garbage rooms; [39]

**228.124 (b)(1)(D)**

**§228.125 (c)(2)(B)**

(D) in mechanical rooms; [39]

(E) under sewer lines that are not shielded to intercept potential drips; [39]

(F) under leaking water lines including leaking automatic fire sprinkler heads or under lines on which water has condensed; [39]

(G) under open stairwells; [39] or

(H) under other sources of contamination. [39]

(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.

§228.125. Preventing Contamination.

(a) Kitchenware and tableware.

(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. [40]

(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. [39]

(3) Except as specified under paragraph (2) of this subsection, 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. [40]

(b) Soiled and clean tableware. Soiled tableware shall be removed from consumer eating and drinking areas and handled so that clean tableware is not contaminated. [39]

(c) Preset tableware. If tableware is preset:

(1) except as specified in paragraph (2) of this subsection, tableware that is preset shall be protected from contamination by being wrapped, covered, or inverted. [39]

(2) preset tableware may be exposed if:

(A) unused settings are removed when a consumer is seated; [39] or

(B) settings not removed when a consumer is seated are cleaned and sanitized before further use. [39]

**§228.125 (d)**

**§228.142 (a)(2)**

(d) Rinsing Equipment and Utensils after Cleaning and Sanitizing. After being cleaned and sanitized, equipment and utensils shall not be rinsed before air drying or use unless:<sup>Pf</sup> [33]

(1) the rinse is applied directly from a potable water supply by a warewashing machine that is maintained and operated as specified under §228.106 and §228.111 of this title;<sup>Pf</sup> [33] and

(2) the rinse is applied only after the equipment and utensils have been sanitized by the application of hot water or by the application of a chemical sanitizer solution whose EPA-registered label use instructions call for rinsing off the sanitizer after it is applied in a commercial warewashing machine.<sup>Pf</sup> [33]

Subchapter E. Water, Plumbing, and Waste.

§228.141. Source.

(a) Approved system. Drinking water shall be obtained from an approved source that is:

(1) a public water system;<sup>P</sup> [19] or

(2) a nonpublic water system that is constructed, maintained, and operated according to Subchapter J of this chapter (pertaining to Private Water Systems).<sup>P</sup> [19]

(b) System flushing and disinfection. A drinking water system shall be flushed and disinfected before being placed in service after construction, repair, or modification and after an emergency situation, such as a flood, that may introduce contaminants to the system.<sup>P</sup> [19]

(c) Bottled drinking water. Bottled drinking water used or sold in a food establishment shall be obtained from approved sources in accordance with 21 CFR 129 - Processing and Bottling of Bottled Drinking Water.<sup>P</sup> [19]

§228.142. Water Quality Standards.

(a) Public and private water systems. Except as specified under subsection (b) of this section:

(1) Water from a public water system shall meet 40 CFR 141 - National Primary Drinking Water Regulations, state drinking water quality standards in accordance with 30 TAC §§290.38 – 290.47(Rules and Regulations for Public Water Systems), and 30 TAC §§290.101 - 290.114, 290.117 - 290.119, 290.121, and 290.122 (Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Systems);<sup>P</sup> [19] and

(2) Water from a nonpublic water system shall meet the requirements in Subchapter J of this chapter, Private Water Systems.<sup>P</sup> [19]

**§228.142 (b)**

**§228.144 (a)(2)(B)**

(b) Nondrinking water.

(1) A nondrinking water supply shall be used only if its use is approved by the regulatory authority. <sup>P</sup> [19]

(2) Nondrinking water shall be used only for nonculinary purposes such as air conditioning, nonfood equipment cooling, and fire protection. <sup>P</sup> [19]

(c) Sampling. Except when used as specified under subsection (b) of this section, water from a nonpublic water system shall be sampled and tested at least monthly and as required by Subchapter J of this chapter (pertaining to Private Water Systems). <sup>Pf</sup> [23]

(d) Sample report. The most recent sample report for the nonpublic water system shall be retained on file in the food establishment or the report shall be maintained as specified by Subchapter J of this chapter (pertaining to Private Water Systems). <sup>Pf</sup> [23]

§228.143. Water Quantity and Availability.

(a) Capacity. The water source and system shall be of sufficient capacity to meet the peak water demands of the food establishment. <sup>Pf</sup> [23]

(b) Pressure. Water under pressure shall be provided to all fixtures, equipment, and nonfood equipment that are required to use water except that water supplied as specified under §228.144(b)(1) and (2) of this title to a temporary food establishment or in response to a temporary interruption of a water supply need not be under pressure. <sup>Pf</sup> [23]

(c) Hot water. Hot water generation and distribution systems shall be sufficient to meet the peak hot water demands throughout the food establishment. <sup>Pf</sup> [23]

§228.144. Water Distribution, Delivery, and Retention Systems.

(a) Distribution. Water shall be received from the source through the use of:

(1) an approved public water main; <sup>Pf</sup> [23] or

(2) one or more of the following that shall be constructed, maintained, and operated according to law: <sup>Pf</sup> [23]

(A) nonpublic water main, water pumps, pipes, hoses, connections, and other appurtenances that meet the requirements of Subchapter J (pertaining to Private Water Systems); <sup>Pf</sup> [23]

(B) water transport vehicles; <sup>Pf</sup> [23] or

**§228.144 (a)(2)(C)**

**§228.146 (b)(3)**

(C) water containers. <sup>Pf</sup> [23]

(b) Alternative water supply. Water meeting the requirements specified under §§228.141 – 228.143 of this title shall be made available for a mobile facility, for a temporary food establishment without a permanent water supply, and for a food establishment with a temporary interruption of its water supply through:

- (1) a supply of containers of commercially bottled drinking water; <sup>Pf</sup> [23]
- (2) one or more closed portable water containers; <sup>Pf</sup> [23]
- (3) an enclosed vehicular water tank; <sup>Pf</sup> [23]
- (4) an on-premises water storage tank; <sup>Pf</sup> [23] or
- (5) piping, tubing, or hoses connected to an adjacent approved source. <sup>Pf</sup> [23]

§228.145. Plumbing Systems, Approved Materials.

(a) Construction. A plumbing system and hoses conveying water shall be constructed and repaired with approved materials according to the Plumbing Code. <sup>P</sup> [19]

(b) Water filter. A water filter shall be made of safe materials. <sup>P</sup> [19]

§228.146. Plumbing Design, Construction, and Installation.

(a) Approved system and cleanable fixtures.

(1) A plumbing system shall be designed, constructed, and installed according to the Plumbing Code. <sup>P</sup> [19]

(2) A plumbing fixture such as a handwashing facility, toilet, or urinal shall be easily cleanable. [46]

(b) Handwashing facility, installation.

(1) A handwashing sink shall be equipped to provide water at a temperature of at least 38 degrees Celsius (100 degrees Fahrenheit) through a mixing valve or combination faucet. <sup>Pf</sup> [31]

(2) A steam mixing valve may not be used at a handwashing sink. <sup>Pf</sup> [31]

(3) A self-closing, slow-closing, or metering faucet shall provide a flow of water for at least 15 seconds without the need to reactivate the faucet. <sup>Pf</sup> [31]

**§228.146 (b)(4)**

**§228.147 (c)(1)**

(4) An automatic handwashing facility shall be installed in accordance with manufacturer's instructions. <sup>Pf</sup> [31]

(c) Backflow prevention, air gap. An air gap between the water supply inlet and the flood level rim of the plumbing fixture, equipment, or nonfood equipment shall be at least twice the diameter of the water supply inlet and may not be less than 25 mm (1 inch). <sup>P</sup> [19]

(d) Backflow prevention device, design standard. A backflow or backsiphonage prevention device installed on a water supply system shall meet American Society of Sanitary Engineering (ASSE) standards for construction, installation, maintenance, inspection, and testing for that specific application and type of device. <sup>P</sup> [19]

(e) Conditioning device, design. A water filter, screen, and other water conditioning device installed on water lines shall be designed to facilitate disassembly for periodic servicing and cleaning. A water filter element shall be of the replaceable type. [46]

§228.147. Plumbing, Numbers and Capacities.

(a) Handwashing facilities.

(1) Except as specified in paragraphs (2) and (3) of this subsection, at least one handwashing lavatory, a number of handwashing lavatories necessary for their convenient use by employees in areas specified under §228.148 of this title, and not fewer than the number of handwashing lavatories required by the Plumbing Code shall be provided. <sup>Pf</sup> [31]

(2) If approved and capable of removing the types of soils encountered in the food operations involved, automatic handwashing facilities may be substituted for handwashing lavatories in a food establishment that has at least one handwashing lavatory.

(3) If approved by the regulatory authority, when no food exposure exists and handwashing sinks are not conveniently available, such as in some Mobile Food Units or temporary food establishments or at some vending machine locations, employees may use chemically treated towelettes for handwashing. <sup>P</sup> [14]

(b) Toilets and urinals. At least one toilet and not fewer than the toilets required by the Plumbing Code shall be provided. If authorized by the Plumbing Code and urinals are substituted for toilets, the substitution shall be done as specified in the Plumbing Code. [46]

(c) Service sink.

(1) At least one service sink or one curbed cleaning facility equipped with a floor drain shall be provided and conveniently located for the cleaning of mops or similar wet floor cleaning tools and for the disposal of mop water and similar liquid waste. <sup>Pf</sup> [33]



**§228.147 (c)(2)**

**§228.149 (a)**

(2) Toilets, urinals and showers may not be used as a service sink for the disposal of mop water and similar liquid waste. [46]

(d) Backflow prevention device, when required. A plumbing system shall be installed to preclude backflow of a solid, liquid, or gas contaminant into the water supply system at each point of use at the food establishment, including on a hose bibb if a hose is attached or on a hose bibb if a hose is not attached and backflow prevention is required by the Plumbing Code, by:

(1) providing an air gap as specified under §228.146(c) of this title; <sup>P</sup> [19] or

(2) installing an approved backflow prevention device as specified under 228.146(d) of this title. <sup>P</sup> [19]

(e) Backflow prevention device, carbonator.

(1) If not provided with an air gap as specified under §228.146(c) of this title, a dual check valve with an intermediate vent preceded by a screen of not less than 100 mesh to 25.4mm (100 mesh to 1 inch) shall be installed upstream from a carbonating device and downstream from any copper in the water supply line. <sup>P</sup> [19]

(2) A dual check valve attached to the carbonator need not be of the vented type if an air gap or vented backflow prevention device has been otherwise provided as specified under paragraph (1) of this subsection.

§228.148. Plumbing, Location and Placement.

(a) Handwashing facilities. A handwashing facility shall be located:

(1) to allow convenient use by employees in food preparation, food dispensing, and warewashing areas; <sup>Pf</sup> [31] and

(2) in, or immediately adjacent to, toilet rooms. <sup>Pf</sup> [31]

(b) Backflow prevention device, location. A backflow prevention device shall be located so that it may be serviced and maintained. [46]

(c) Conditioning device, location. A water filter, screen, and other water conditioning device installed on water lines shall be located to facilitate disassembly for periodic servicing and cleaning.

§228.149. Plumbing, Operation and Maintenance.

(a) Using a handwashing facility.

**§228.149 (a)(1)**

**§228.149 (d)(2)(B)**

(1) A handwashing facility shall be maintained so that it is accessible at all times for employee use. <sup>Pf</sup> [31]

(2) A handwashing facility may not be used for purposes other than handwashing. <sup>Pf</sup> [31]

(3) An automatic handwashing facility shall be used in accordance with manufacturer's instructions. <sup>Pf</sup> [31]

(b) Prohibiting a cross connection.

(1) A person may not create a cross connection by connecting a pipe or conduit between the drinking water system and a nondrinking water system or a water system of unknown quality. <sup>P</sup> [19]

(2) The piping of a nondrinking water system shall be durably identified so that it is readily distinguishable from piping that carries drinking water. <sup>Pf</sup> [23]

(c) Scheduling inspection and service for a water system device. A device such as a water treatment device or backflow preventer shall be scheduled for inspection and service, in accordance with manufacturer's instructions and as necessary to prevent device failure based on local water conditions, and records demonstrating inspection and service shall be maintained by the person in charge. <sup>Pf</sup> [23]

(d) Water reservoir of fogging devices, cleaning.

(1) A reservoir that is used to supply water to a device such as a produce fogger shall be:

(A) maintained in accordance with manufacturer's specifications; <sup>P</sup> [19]  
and

(B) cleaned in accordance with manufacturer's specifications or according to the procedures specified under paragraph (2) of this subsection, whichever is more stringent. <sup>P</sup> [19]

(2) Cleaning procedures shall include at least the following steps and shall be conducted at least once a week:

(A) draining and complete disassembly of the water and aerosol contact parts; <sup>P</sup> [19]

(B) brush-cleaning the reservoir, aerosol tubing, and discharge nozzles with a suitable detergent solution; <sup>P</sup> [19]

**§228.149 (d)(2)(C)**

**§228.149 (f)(4)**

(C) flushing the complete system with water to remove the detergent solution and particulate accumulation; <sup>P</sup> [19] and

(D) rinsing by immersing, spraying, or swabbing the reservoir, aerosol tubing, and discharge nozzles with at least 50 mg/L hypochlorite solution. <sup>P</sup> [19]

(e) System maintained in good repair. A plumbing system shall be:

(1) repaired according to the Plumbing Code; <sup>P</sup> [19] and

(2) maintained in good repair. [46]

(f) Mobile water tank and Mobile Food Unit water tank.

(1) Materials, approved. Materials that are used in the construction of a mobile water tank, Mobile Food Unit water tank, and appurtenances shall be:

(A) safe; <sup>P</sup> [19]

(B) durable, corrosion-resistant, and nonabsorbent; <sup>Pf</sup> [32] and

(C) finished to have a smooth, easily cleanable surface. <sup>Pf</sup> [32]

(2) Tank design and construction. A mobile water tank shall be:

(A) enclosed from the filling inlet to the discharge outlet; <sup>Pf</sup> [32] and

(B) sloped to an outlet that allows complete drainage of the tank. <sup>Pf</sup> [32]

(3) Tank inspection and cleaning port, protected and secured. If a water tank is designed with an access port for inspection and cleaning, the opening shall be in the top of the tank and:

(A) flanged upward at least 13 mm (one-half inch); <sup>Pf</sup> [32] and

(B) equipped with a port cover assembly that is:

(i) provided with a gasket and a device for securing the cover in place; <sup>Pf</sup> [32] and

(ii) flanged to overlap the opening and sloped to drain. <sup>Pf</sup> [32]

(4) "V" type threads, use limitation. A fitting with "V" type threads on a water tank inlet or outlet shall be allowed only when a hose is permanently attached. [47]

**§228.149 (f)(5)**

**§228.149 (f)(10)(A)**

(5) Tank vent, protected. If provided, a water tank vent shall terminate in a downward direction and shall be covered with:

(A) 16 mesh to 25.4 mm (16 mesh to 1 inch) screen or equivalent when the vent is in a protected area; [37] or

(B) a protective filter when the vent is in an area that is not protected from windblown dirt and debris. [37]

(6) Tank inlet and outlet, sloped to drain.

(A) A water tank and its inlet and outlet shall be sloped to drain. [37]

(B) A water tank inlet shall be positioned so that it is protected from contaminants such as waste discharge, road dust, oil, or grease. [37]

(7) Tank hose, construction and identification. A hose used for conveying drinking water from a water tank shall be:

(A) safe; <sup>P</sup> [19]

(B) durable, corrosion-resistant, and nonabsorbent; <sup>Pf</sup> [32]

(C) resistant to pitting, chipping, crazing, scratching, scoring, distortion, and decomposition; <sup>Pf</sup> [32]

(D) finished with a smooth interior surface; <sup>Pf</sup> [32]and

(E) clearly and durably identified as to its use if not permanently attached. <sup>Pf</sup> [32]

(8) Tank filter, compressed air. A filter that does not pass oil or oil vapors shall be installed in the air supply line between the compressor and drinking water system when compressed air is used to pressurize the water tank system. <sup>P</sup> [19]

(9) Protective cover or device. A cap and keeper chain, closed cabinet, closed storage tube, or other approved protective cover or device shall be provided for a water inlet, outlet, and hose. [37]

(10) Mobile Food Unit tank inlet. A Mobile Food Unit's water tank inlet shall be:

(A) 19.1 mm (three-fourths inch) in inner diameter or less; <sup>Pf</sup> [32] and

**§228.149 (f)(10)(B)**

**§228.150 (c)**

(B) provided with a hose connection of a size or type that will prevent its use for any other service. <sup>Pf</sup> [32]

(11) Fill hose and water holding tank shall be labeled as “Potable Water”. [37]

(12) Water in a Mobile Food Unit holding tank shall be tested for contamination by sampling upon request by the regulatory authority. <sup>Pf</sup> [23]

(13) Operation and maintenance, system flushing and disinfection. A water tank, pump, and hoses shall be flushed and sanitized before being placed in service after construction, repair, modification, and periods of nonuse. <sup>P</sup> [19]

(14) Using a pump and hoses, backflow prevention. A person shall operate a water tank, pump, and hoses so that backflow and other contamination of the water supply are prevented. [44]

(15) Protecting inlet, outlet, and hose fitting. If not in use, a water tank and hose inlet and outlet fitting shall be protected using a cover or device as specified in paragraph (9) of this subsection. [37]

(16) Tank, pump, and hoses, dedication.

(A) Except as specified in subparagraph (B) of this paragraph, a water tank, pump, and hoses used for conveying drinking water shall be used for no other purpose. <sup>P</sup> [19]

(B) Water tanks, pumps, and hoses approved for liquid foods may be used for conveying drinking water if they are cleaned and sanitized before they are used to convey water.

**§228.150. Sewage Retention, Drainage, and Delivery.**

(a) Mobile holding tank. Capacity and Drainage. A sewage holding tank in a Mobile Food Unit shall be:

(1) Sized 15 percent larger in capacity than the water supply tank; [44] and

(2) Sloped to a drain that is 25 mm (1 inch) in inner diameter or greater, equipped with a shut-off valve. [44]

(b) Food establishment drainage systems, including grease traps, that convey sewage shall be designed and installed as specified under §228.146(a)(1) of this title. [44]

(c) Backflow prevention.

**§228.150 (c)(1)**

**§228.151 (b)**

(1) Except as specified in paragraphs (2), (3) and (4) of this subsection, a direct connection may not exist between the sewage system and a drain originating from equipment in which food, portable equipment, or utensils are placed. <sup>P</sup> [20]

(2) Paragraph (1) of this subsection does not apply to floor drains that originate in refrigerated spaces that are constructed as an integral part of the building.

(3) If allowed by the Plumbing Code, a warewashing machine may have a direct connection between its waste outlet and a floor drain when the machine is located within 1.5 m (5 feet) of a trapped floor drain and the machine outlet is connected to the inlet side of a properly vented floor drain trap.

(4) If allowed by the Plumbing Code, a warewashing or culinary sink may have a direct connection.

(d) Grease trap. If used, a grease trap shall be located to be easily accessible for cleaning, operation, and maintenance. [44]

(e) Conveying sewage. Sewage shall be conveyed to the point of disposal through an approved sanitary sewage system or other system, including use of sewage transport vehicles, waste retention tanks, pumps, pipes, hoses, and connections that are constructed, maintained, and operated according to the Plumbing Code. <sup>P</sup> [20]

(f) Removing Mobile Food Unit Wastes. Sewage and other liquid wastes shall be removed from a Mobile Food Unit at an approved waste servicing area or by a sewage transport vehicle in such a way that a public health hazard or nuisance is not created. <sup>P</sup> [20]

(g) Flushing a Waste Retention Tank. A tank for liquid waste retention shall be thoroughly flushed and drained in a sanitary manner during the servicing operation. [44]

§228.151. Disposal Facility.

(a) Approved sewage disposal system. Sewage shall be disposed through an approved facility that is:

(1) a public sewage system; <sup>P</sup> [20] or

(2) an individual sewage disposal system that is sized, constructed, maintained, and operated according to 30 TAC, Chapter 285, On-Site Sewage Facilities. <sup>P</sup> [20]

(b) Other liquid wastes and rainwater. Condensate drainage and other nonsewage liquids and rainwater shall be drained from point of discharge to disposal according to 30 TAC, Chapter 285, On-Site Sewage Facilities. [44]

**§228.152**

**§228.152 (g)(1)**

§228.152. Refuse, Recyclables, and Returnables, Facilities on the Premises.

(a) Indoor storage area. If located within the food establishment, a storage area for refuse, recyclables, and returnables shall meet the requirements specified under §§228.171, 228.173(a)-(h), 228.174(e) and (f) of this title (relating to Physical Facilities). [44]

(b) Outdoor storage surface. An outdoor storage surface for refuse, recyclables, and returnables shall be constructed of nonabsorbent material such as concrete or asphalt and shall be smooth, durable, and sloped to drain. [44]

(c) Outdoor enclosure. If used, an outdoor enclosure for refuse, recyclables, and returnables shall be constructed of durable and cleanable materials. [44]

(d) Receptacles.

(1) Except as specified in paragraph (2) of this subsection, receptacles and waste handling units for refuse, recyclables, and returnables and for use with materials containing food residue shall be durable, cleanable, insect and rodent-resistant, leak-proof, and nonabsorbent. [44]

(2) Plastic bags and wet strength paper bags may be used to line receptacles for storage inside the food establishment, or within closed outside receptacles.

(e) Receptacles in vending machines. Except for a receptacle for beverage bottle crown closures, a refuse receptacle may not be located within a vending machine. [44]

(f) Outside receptacles.

(1) Receptacles and waste handling units for refuse, recyclables, and returnables used with materials containing food residue and used outside the food establishment shall be designed and constructed to have tight-fitting lids, doors, or covers. [44]

(2) Receptacles and waste handling units for refuse and recyclables such as an on-site compactor shall be installed so that accumulation of debris and insect and rodent attraction and harborage are minimized and effective cleaning is facilitated around and, if the unit is not installed flush with the base pad, under the unit. [44]

(g) Storage areas, rooms, and receptacles, capacity and availability.

(1) An inside storage room and area and outside storage area and enclosure, and receptacles shall be of sufficient capacity to hold refuse, recyclables, and returnables that accumulate. [44]

**§228.152 (g)(2)**

**§228.152 (m)**

(2) A receptacle shall be provided in each area of the food establishment or premises where refuse is generated or commonly discarded, or where recyclables or returnables are placed. [44]

(3) If disposable towels are used at handwashing lavatories, a waste receptacle shall be located at each lavatory or group of adjacent lavatories. [44]

(h) Toilet room receptacle, covered. A toilet room used by females shall be provided with a covered receptacle for sanitary napkins. [46]

(i) Cleaning implements and supplies.

(1) Except as specified in paragraph (2) of this subsection, suitable cleaning implements and supplies such as high pressure pumps, hot water, steam, and detergent shall be provided as necessary for effective cleaning of receptacles and waste handling units for refuse, recyclables, and returnables. [45]

(2) If approved, off-premises-based cleaning services may be used if on-premises cleaning implements and supplies are not provided.

(j) Storage areas, redeeming machines, receptacles and waste handling units, location.

(1) An area designated for refuse, recyclables, returnables, and, except as specified in paragraph (2) of this subsection, a redeeming machine for recyclables or returnables shall be located so that it is separate from food, equipment, utensils, linens, and single-service and single-use articles and a public health hazard or nuisance is not created. [44]

(2) A redeeming machine may be located in the packaged food storage area or consumer area of a food establishment if food, equipment, utensils, linens, and single-service and single-use articles are not subject to contamination from the machines and a public health hazard or nuisance is not created. [44]

(3) The location of receptacles and waste handling units for refuse, recyclables, and returnables may not create a public health hazard or nuisance or interfere with the cleaning of adjacent space. [44]

(k) Storing refuse, recyclables, and returnables. Refuse, recyclables, and returnables shall be stored in receptacles or waste handling units so that they are inaccessible to insects and rodents. [44]

(l) Areas, enclosures, and receptacles, good repair. Storage areas, enclosures, and receptacles for refuse, recyclables, and returnables shall be maintained in good repair. [44]

(m) Outside storage prohibitions.



**§228.152 (m)(1)**

**§228.153 (a)**

(1) Except as specified in paragraph (2) of this subsection, refuse receptacles not meeting the requirements specified under §228.152(d)(1) of this title such as receptacles that are not rodent-resistant, unprotected plastic bags and paper bags, or baled units that contain materials with food residue may not be stored outside. [44]

(2) Cardboard or other packaging material that does not contain food residues and that is awaiting regularly scheduled delivery to a recycling or disposal site may be stored outside without being in a covered receptacle if it is stored so that it does not create a rodent harborage problem.

(n) Covering receptacles. Receptacles and waste handling units for refuse, recyclables, and returnables shall be kept covered:

(1) inside the food establishment if the receptacles and units:

(A) contain food residue and are not in continuous use; [44] or

(B) after they are filled; [44] and

(2) with tight-fitting lids or doors if kept outside the food establishment. [44]

(o) Using drain plugs. Drains in receptacles and waste handling units for refuse, recyclables, and returnables shall have drain plugs in place. [44]

(p) Maintaining refuse areas and enclosures. A storage area and enclosure for refuse, recyclables, or returnables shall be maintained free of unnecessary items, as specified under §228.186(n) of this title (pertaining to Physical Facilities), and clean. [44]

(q) Cleaning receptacles.

(1) Receptacles and waste handling units for refuse, recyclables, and returnables shall be thoroughly cleaned in a way that does not contaminate food, equipment, utensils, linens, or single-service and single-use articles, and waste water shall be disposed of as specified under §228.150(e) of this title. [44]

(2) Soiled receptacles and waste handling units for refuse, recyclables, and returnables shall be cleaned at a frequency necessary to prevent them from developing a buildup of soil or becoming attractants for insects and rodents. [44]

**§228.153. Refuse Removal.**

(a) Frequency. Refuse, recyclables, and returnables shall be removed from the premises at a frequency that will minimize the development of objectionable odors and other conditions that attract or harbor insects and rodents. [44]

**§228.153 (b)**

**§228.172 (b)**

(b) Receptacles or vehicles. Refuse, recyclables, and returnables shall be removed from the premises by way of:

(1) portable receptacles that are constructed and maintained according to 30 TAC, Chapter 330, Municipal Solid Waste; [44] or

(2) a transport vehicle that is constructed, maintained, and operated according to 30 TAC, Chapter 330, Municipal Solid Waste. [44]

§228.154. Facilities for Disposal and Recycling, Community or Individual Facility.

Solid waste not disposed of through the sewage system such as through grinders and pulpers shall be recycled or disposed of in an approved public or private community recycling or refuse facility; or solid waste shall be disposed of in an individual refuse facility such as a landfill or incinerator which is sized, constructed, maintained, and operated according to 30 TAC, Chapter 330, Municipal Solid Waste. [44]

Subchapter F. Physical Facilities.

§228.171. Indoor Areas, Surface Characteristics.

Except as specified in §228.222(j) and (k)(1) of this title, materials for indoor floor, wall, and ceiling surfaces under conditions of normal use shall be:

(1) smooth, durable, and easily cleanable for areas where food establishment operations are conducted; [45]

(2) closely woven and easily cleanable carpet for carpeted areas; [45] and

(3) nonabsorbent for areas subject to moisture such as food preparation areas, walk-in refrigerators, warewashing areas, toilet rooms, Mobile Food Unit servicing areas, and areas subject to flushing or spray cleaning methods. [45]

§228.172. Outdoor Areas, Surface Characteristics.

(a) Walking and driving areas. The outdoor walking and driving areas shall be surfaced with concrete, asphalt, or gravel or other materials that have been effectively treated to minimize dust, facilitate maintenance, and prevent muddy conditions. [45]

(b) Exterior surfaces. Exterior surfaces of buildings and Mobile Food Units shall be of weather-resistant materials and shall comply with law. [45]

**§228.172 (c)**

(c) Storage areas. Outdoor storage areas for refuse, recyclables, or returnables shall be of materials specified under §228.152 (b) and (c) of this title (relating to Water, Plumbing and Waste). [45]

**§228.173 (d)(2)(A)**

§228.173. Floors, Walls, and Ceilings.

(a) Cleanability. Except as specified under subsection (d) of this section, and except for antislip floor coverings or applications that may be used for safety reasons, the floors, floor coverings, walls, wall coverings, and ceilings shall be designed, constructed, and installed so they are smooth and easily cleanable, [45]

(b) Floors, walls, and ceilings, utility lines.

(1) Utility service lines and pipes may not be unnecessarily exposed. [45]

(2) Exposed utility service lines and pipes shall be installed so they do not obstruct or prevent cleaning of the floors, walls, or ceilings. [45]

(3) Exposed horizontal utility service lines and pipes may not be installed on the floor [45]

(c) Floor and wall junctures, coved, and enclosed or sealed.

(1) In food establishments in which cleaning methods other than water flushing are used for cleaning floors, the floor and wall junctures shall be coved and closed to no larger than 1 mm (one thirty-second inch). [45]

(2) The floors in food establishments in which water flush cleaning methods are used shall be provided with drains and be graded to drain, and the floor and wall junctures shall be covered and sealed. [45]

(d) Floor carpeting, restrictions and installation.

(1) A floor covering such as carpeting or similar material may not be installed as a floor covering in food preparation areas, walk-in refrigerators, warewashing areas, toilet room areas where handwashing lavatories, toilets, and urinals are located, refuse storage rooms, or other areas where the floor is subject to moisture, flushing, or spray cleaning methods. [45]

(2) If carpeting is installed as a floor covering in areas other than those specified under paragraph (1) of this subsection, it shall be:

(A) securely attached to the floor with a durable mastic, by using a stretch and tack method, or by another method; [45] and

**§228.173 (d)(2)(B)**

**§228.174 (a)(2)**

(B) installed tightly against the wall under the coving or installed away from the wall with a space between the carpet and the wall and with the edges of the carpet secured by metal stripping or some other means. [45]

(e) Floor covering, mats and duckboards. Mats and duckboards shall be designed to be removable and easily cleanable. [45]

(f) Wall and ceiling coverings and coatings.

(1) Wall and ceiling covering materials shall be attached so that they are easily cleanable. [45]

(2) Except in areas used only for dry storage, concrete, porous blocks, or bricks used for indoor wall construction shall be finished and sealed to provide a smooth, nonabsorbent, easily cleanable surface. [45]

(3) Walls including non-supporting partitions, wall covering and ceilings of the walk-in refrigeration units, food preparation areas, equipment washing and utensil washing areas, toilet rooms and vestibules shall be light in color. [45]

(g) Walls and ceilings, attachments.

(1) Except as specified in paragraph (2) of this subsection, attachments to walls and ceilings such as light fixtures, mechanical room ventilation system components, vent covers, wall mounted fans, decorative items, and other attachments shall be easily cleanable. [45]

(2) In a consumer area, wall and ceiling surfaces and decorative items and attachments that are provided for ambiance need not meet this requirement if they are kept clean. [45]

(h) Walls and ceilings, studs, joists, and rafters. Except for temporary food establishments, studs, joists, and rafters may not be exposed in areas subject to moisture. [45]

§228.174. Functionality.

(a) Light bulbs, protective shielding.

(1) Except as specified in paragraph (2) of this subsection, light bulbs shall be shielded, coated, or otherwise shatter-resistant in areas where there is exposed food; clean equipment, utensils, and linens; or unwrapped single-service and single-use articles. [43]

(2) Shielded, coated, or otherwise shatter-resistant bulbs need not be used in areas used only for storing food in unopened packages; if:

**§228.174 (a)(2)(A)**

**§228.174 (e)(1)(C)**

(A) the integrity of the packages cannot be affected by broken glass falling onto them; and

(B) the packages are capable of being cleaned of debris from broken bulbs before the packages are opened.

(3) An infrared or other heat lamp shall be protected against breakage by a shield surrounding and extending beyond the bulb so that only the face of the bulb is exposed.

(b) Heating, ventilating, air conditioning system vents. Heating, ventilating, and air conditioning systems shall be designed and installed so that make-up air intake and exhaust vents do not cause contamination of food, food-contact surfaces, equipment, or utensils. [43]

(c) Insect control devices, design and installation.

(1) Insect control devices that are used to electrocute or stun flying insects shall be designed to retain the insect within the device. [34]

(2) Insect control devices shall be installed so that:

(A) the devices are not located over a food preparation area; [34] and

(B) dead insects and insect fragments are prevented from being impelled onto or falling on exposed food; clean equipment, utensils, and linens; and unwrapped single-service and single-use articles. [34]

(d) Toilet rooms, enclosed. Except where a toilet room is located outside a food establishment and does not open directly into the food establishment such as a toilet room that is provided by the management of a shopping mall, a toilet room located on the premises shall be completely enclosed and provided with a tight-fitting and self-closing door. [46]

(e) Outer openings, protected.

(1) Except as specified in paragraphs (2) - (5) of this subsection, outer openings of a food establishment shall be protected against the entry of insects and rodents by:

(A) filling or closing holes and other gaps along floors, walls, and ceilings; [34]

(B) closed, tight-fitting windows; [34] and

(C) solid, self-closing, tight-fitting doors. [34]

**§228.174 (e)(2)**

**§228.174 (h)**

(2) Paragraph (1) of this subsection does not apply if a food establishment opens into a larger structure, such as a mall, airport, or office building, or into an attached structure, such as a porch, and the outer openings from the larger or attached structure are protected against the entry of insects and rodents.

(3) Exterior doors used as exits need not be self-closing if they are:

(A) solid and tight-fitting; [34]

(B) designated for use only when an emergency exists, by the fire protection authority that has jurisdiction over the food establishment; [34] and

(C) limited-use so they are not used for entrance or exit from the building for purposes other than the designated emergency exit use. [34]

(4) Except as specified in paragraphs (2) and (5) of this subsection, if the windows or doors of a food establishment, or of a larger structure within which a food establishment is located, are kept open for ventilation or other purposes or a temporary food establishment is not provided with windows and doors as specified under paragraph (1) of this subsection, the openings shall be protected against the entry of insects and rodents by:

(A) 16 mesh to 25.4mm (16 mesh to 1 inch) screens; [34]

(B) properly designed and installed air curtains to control flying insects; [34] or

(C) other effective means. [34]

(5) Paragraph (4) of this subsection does not apply if flying insects and other pests are absent due to the location of the establishment, the weather, or other limiting condition.

(f) Exterior walls and roofs, protective barrier. Perimeter walls and roofs of a food establishment shall effectively protect the establishment from the weather and the entry of insects, rodents, and other animals. [34]

(g) Outdoor food vending areas, overhead protection. Except for machines that vend canned beverages if located outside, a machine used to vend food shall be provided with overhead protection. [37]

(h) Outdoor Servicing Areas, Overhead Protection. Except for areas used only for the loading of water or the discharge of sewage and other liquid waste, through the use of a closed system of hoses, servicing areas shall be provided with overhead protection. [37]

**§228.174 (i)**

**§228.175 (d)**

(i) Outdoor walking and driving surfaces, graded to drain. Exterior walking and driving surfaces shall be graded to drain. [44]

(j) Outdoor refuse areas, curbed and graded to drain. Outdoor refuse areas shall be constructed in accordance with law and shall be curbed and graded to drain to collect and dispose of liquid waste that result from the refuse and from cleaning the area and waste receptacles. [44]

(k) Private homes and living or sleeping quarters, use prohibition. A private home, a room used as living or sleeping quarters, or an area directly opening into a room used as living or sleeping quarters may not be used for conducting food establishment operations. <sup>P</sup> [7]

(l) Living or sleeping quarters, separation. Living or sleeping quarters located on the premises of a food establishment such as those provided for lodging registration clerks or resident managers shall be separated from rooms and areas used for food establishment operations by complete partitioning and solid self-closing doors. [45]

§228.175. Handwashing Sinks.

(a) Minimum number. Handwashing sinks shall be provided as specified under §228.147(a) (1)-(3) of this title.

(b) Handwashing cleanser, availability. Each handwashing sink or group of 2 adjacent sinks shall be provided with a supply of hand cleaning liquid, powder, or bar soap. <sup>Pf</sup> [31]

(c) Hand drying provision. Each handwashing sink or group of adjacent sinks shall be provided with:

(1) individual, disposable towels; <sup>Pf</sup> [31]

(2) a continuous towel system that supplies the user with a clean towel; <sup>Pf</sup> [31] or

(3) a heated-air hand drying device. <sup>Pf</sup> [31]

(4) a hand drying device that employs an air-knife system that delivers high velocity, pressurized air at ambient temperatures. <sup>Pf</sup> [31]

(d) Handwashing aids and devices, use restrictions. A sink used for food preparation or utensil washing, or a service sink or curbed cleaning facility used for the disposal of mop water or similar wastes, may not be provided with the handwashing aids and devices required for a handwashing sink as specified in subsections (b) and (c) of this section and §228.152(g)(3) of this title. [47]

**§228.175 (e)**

**§228.178**

(e) Handwashing signage. A sign or poster that notifies food employees to wash their hands shall be provided at all handwashing sinks used by food employees and shall be clearly visible to food employees. [47]

(f) Disposable towels, waste receptacle. A handwashing sink or group of adjacent sinks that is provided with disposable towels shall be provided with a waste receptacle as specified under §228.152(g)(3) of this title. [44]

§228.176. Toilets and Urinals.

(a) Minimum number. Toilets and urinals shall be provided as specified under §228.147(b) of this title. [46]

(b) Toilet tissue, availability. A supply of toilet tissue shall be available at each toilet. [46]

§228.177. Lighting Intensity.

The light intensity shall be:

(1) at least 108 lux (10 foot candles) at a distance of 75 cm (30 inches) above the floor, in walk-in refrigeration units and dry food storage areas and in other areas and rooms during periods of cleaning; [43]

(2) at least 215 lux (20 foot candles):

(A) at a surface where food is provided for consumer self-service such as buffets and salad bars or where fresh produce or packaged foods are sold or offered for consumption; [43]

(B) inside equipment such as reach-in and under-counter refrigerators; [43]

(C) at a distance of 75 cm (30 inches) above the floor in areas used for handwashing, warewashing, and equipment and utensil storage, and in toilet rooms; [43] and

(3) at least 540 lux (50 foot candles) at a surface where a food employee is working with food or working with utensils or equipment such as knives, slicers, grinders, or saws where employee safety is a factor. [43]

§228.178. Ventilation, Mechanical.



**§228.178**

**§228.184**

If necessary to keep rooms free of excessive heat, steam, condensation, vapors, obnoxious odors, smoke, and fumes, mechanical ventilation of sufficient capacity shall be provided. [43]

§228.179. Dressing Areas and Lockers, Designation.

(a) Dressing rooms or dressing areas shall be designated if employees routinely change their clothes in the establishment. [45]

(b) Lockers or other suitable facilities shall be provided for the orderly storage of employees' clothing and other possessions. [45]

§228.180. Service Sinks, Availability.

A service sink or curbed cleaning facility shall be provided as specified under §228.147(c)(1) of this title.

§228.181. Handwashing Sinks, Conveniently Located.

Handwashing sinks shall be conveniently located as specified under §228.148(a) of this title.

§228.182. Toilet Rooms, Convenience and Accessibility.

Toilet rooms shall be conveniently located and accessible to employees during all hours of operation. [46]

§228.183. Employee Accommodations, Designated Areas.

(a) Areas designated for employees to eat, drink, and use tobacco shall be located so that food, equipment, linens, and single-service and single-use articles are protected from contamination. [45]

(b) Lockers or other suitable facilities shall be located in a designated room or area where contamination of food, equipment, utensils, linens, and single-service and single-use articles cannot occur. [45]

§228.184. Distressed Merchandise, Segregation and Location.

Products that are held by the permit holder for credit, redemption, or return to the distributor, such as damaged, spoiled, or recalled products, shall be segregated and held in designated areas that are separated from food, equipment, utensils, linens, and single-service and single-use articles. <sup>P</sup> [11]

**§228.185**

**§228.186 (e)**

§228.185. Receptacles, Waste Handling Units, and Designated Storage Areas.

Units, receptacles, and areas designated for storage of refuse and recyclable and returnable containers shall be located as specified under §228.152(j) of this title. [44]

§228.186. Premises, Buildings, Systems, Rooms, Fixtures, Equipment, Devices, and Materials.

(a) Repairing. The physical facilities shall be maintained in good repair. [45]

(b) Cleaning, frequency and restrictions. [45]

(1) The physical facilities shall be cleaned as often as necessary to keep them clean. [45]

(2) Except for cleaning that is necessary due to a spill or other accident cleaning shall be done during periods when the least amount of food is exposed such as after closing. [45]

(c) Cleaning floors, dustless methods.

(1) Except as specified in paragraph (2) of this subsection, only dustless methods of cleaning shall be used, such as wet cleaning, vacuum cleaning, mopping with treated dust mops, or sweeping using a broom and dust-arresting compounds. [45]

(2) Spills or drippage on floors that occur between normal floor cleaning times may be cleaned:

(A) without the use of dust-arresting compounds; and

(B) in the case of liquid spills or drippage, with the use of a small amount of absorbent compound such as sawdust or diatomaceous earth applied immediately before spot cleaning.

(d) Cleaning ventilation systems, nuisance and discharge prohibition.

(1) Intake and exhaust air ducts shall be cleaned and filters changed so they are not a source of contamination by dust, dirt, and other materials. [43]

(2) If vented to the outside, ventilation systems may not create a public health hazard or nuisance or unlawful discharge. [43]

(e) Cleaning maintenance tools, preventing contamination. Food preparation sinks, handwashing sinks, and warewashing equipment may not be used for the cleaning of maintenance tools, the preparation or holding of maintenance materials, or the disposal of mop water and similar liquid wastes. <sup>P</sup> [20]

**§228.186 (f)**

**§228.186 (m)(1)**

(f) Drying mops. After use, mops shall be placed in a position that allows them to air-dry without soiling walls, equipment, or supplies. [45]

(g) Absorbent materials on floors, use limitation. Except as specified in subsection (c)(2) of this section, sawdust, wood shavings, granular salt, baked clay, diatomaceous earth, or similar materials may not be used on floors. [45]

(h) Cleaning of Plumbing Fixtures. Plumbing fixtures such as handwashing sinks, toilets, and urinals shall be cleaned as often as necessary to keep them clean. [46]

(i) Closing toilet room doors. Except during cleaning and maintenance operations toilet room doors as specified under §228.174(d) of this title shall be kept closed. [46]

(j) Using dressing rooms and lockers.

(1) Dressing rooms shall be used by employees if the employees regularly change their clothes in the establishment. [45]

(2) Lockers or other suitable facilities shall be used for the orderly storage of employee clothing and other possessions. [45]

(k) Controlling pests. The presence of insects, rodents, and other pests shall be control to eliminate their presence on the premises by:

(1) routinely inspecting incoming shipments of food and supplies; [34]

(2) routinely inspecting the premises for evidence of pests; [34]

(3) using methods, if pests are found, such as trapping devices or other means of pest control as specified under §228.204(b) and §228.208(b) and (c) of this title; <sup>Pf</sup> [25] and

(4) eliminating harborage conditions. [34]

(l) Removing dead or trapped birds, insects, rodents, and other pests. Dead or trapped birds, insects, rodents, and other pests shall be removed from control devices and the premises at a frequency that prevents their accumulation, decomposition, or the attraction of pests. [34]

(m) Storing maintenance tools. Maintenance tools such as brooms, mops, vacuum cleaners, and similar items shall be:

(1) stored so they do not contaminate food, equipment, utensils, linens, and single-service and single-use articles; [45] and

**§228.186 (m)(2)**

(2) stored in an orderly manner that facilitates cleaning the area used for storing the maintenance tools. [45]

(n) Maintaining premises, unnecessary items and litter. The premises shall be free of:

(1) items that are unnecessary to the operation or maintenance of the establishment such as equipment that is nonfunctional or no longer used; [45] and

(2) litter. [45]

(o) Prohibiting animals.

(1) Except as specified in paragraphs (2) and (3) of this subsection, live animals may not be allowed on the premises of a food establishment. [34]

(2) Live animals may be allowed in the following situations if the contamination of food, clean equipment, utensils, linens, and unwrapped single-service and single-use articles cannot result:

(A) edible fish or decorative fish in aquariums, shellfish or crustacea on ice or under refrigeration, and shellfish and crustacea in display tank systems; [34]

(B) patrol dogs accompanying police or security officers in offices and dining, sales, and storage areas, and sentry dogs running loose in outside fenced areas; [34]

(C) in areas that are not used for food preparation and that are usually open for customers, such as dining and sales areas, service animals that are controlled by the disabled employee or person, or service animals in training when accompanied by an approved trainer if a health or safety hazard will not result from the presence or activities of the service animal; [34]

(D) pets in the common dining areas of institutional care facilities such as nursing homes, assisted living facilities, group homes, or residential care facilities at times other than during meals if:

(i) effective partitioning and self-closing doors separate the common dining areas from food storage or food preparation areas; [34]

(ii) condiments, equipment, and utensils are stored in enclosed cabinets or removed from the common dining areas when pets are present; [34] and

(iii) dining areas including tables, countertops, and similar surfaces are effectively cleaned before the next meal service; [34] and

**§228.186 (o)(2)(E)**

**§228.204(a)(1)**

(E) in areas that are not used for food preparation, storage, sales, display, or dining, in which there are caged animals or animals that are similarly confined, such as in a variety store that sells pets or a tourist park that displays animals. [34]

(3) Live or dead fish bait may be stored if contamination of food, clean equipment, utensils, linens, and unwrapped single-service and single-use articles cannot result. [34]

Subchapter G. Poisonous or Toxic Materials.

§228.201. Original Containers, Identifying Information, Prominence.

Containers of poisonous or toxic materials and personal care items shall bear a legible manufacturer's label. <sup>P</sup> [18]

§228.202. Working Containers, Common Name.

Working containers used for storing poisonous or toxic materials such as cleaners and sanitizers taken from bulk supplies shall be clearly and individually identified with the common name of the material. <sup>P</sup> [18]

§228.203. Storage, Separation.

Poisonous or toxic materials shall be stored so they cannot contaminate food, equipment, utensils, linens, and single-service and single-use articles by:

(1) separating the poisonous or toxic materials by spacing or partitioning; <sup>P</sup> [18]  
and

(2) locating the poisonous or toxic materials in an area that is not above food, equipment, utensils, linens, and single-service or single-use articles. This paragraph does not apply to equipment and utensil cleaners and sanitizers that are stored in warewashing areas for availability and convenience if the materials are stored to prevent contamination of food, equipment, utensils, linens, and single-service and single-use articles. <sup>P</sup> [18]

§228.204. Presence and Use.

(a) Restriction.

(1) Only those poisonous or toxic materials that are required for the operation and maintenance of a food establishment, such as for the cleaning and sanitizing of equipment and utensils and the control of insects and rodents, shall be allowed in a food establishment. <sup>P</sup> [18]

**§228.204 (a)(2)**

**§228.205**

(2) Paragraph (1) of this subsection does not apply to packaged poisonous or toxic materials that are for retail sale.

(b) Conditions of use. Poisonous or toxic materials shall be:

(1) used according to:

(A) law and this chapter; <sup>P</sup> [18]

(B) manufacturer's use directions included in labeling, and, for a pesticide, manufacturer's label instructions that state that use is allowed in a food establishment; <sup>P</sup> [18]

(C) the conditions of certification, if certification is required, for use of the pest control materials; <sup>P</sup> [18] and

(D) additional conditions that may be established by the regulatory authority; <sup>P</sup> [18] and

(2) applied so that:

(A) a hazard to employees or other persons is not constituted; <sup>P</sup> [18] and

(B) contamination including toxic residues due to drip, drain, fog, splash or spray on food, equipment, utensils, linens, and single-service and single-use articles is prevented, and for a restricted use pesticide, this is achieved by: <sup>P</sup> [18]

(i) removing the items; <sup>P</sup> [18]

(ii) covering the items with impermeable covers; <sup>P</sup> [18] or

(iii) taking other appropriate preventive actions; <sup>P</sup> [18] and

(iv) cleaning and sanitizing equipment and utensils after the application. <sup>P</sup> [18]

(3) A restricted use pesticide shall be applied only by an applicator certified as defined in 7 USC 136(e), Certified Applicator of the Federal Insecticide, Fungicide and Rodenticide Act, or a person under the direct supervision of a certified applicator. <sup>P</sup> [18]

**§228.205. Container Prohibitions, Poisonous or Toxic Material Containers.**

A container previously used to store poisonous or toxic materials may not be used to store, transport, or dispense food. <sup>P</sup> [18]

**§228.206**

**§228.206 (d)(1)(A)**

§228.206. Chemicals.

(a) Sanitizers, criteria. Chemical sanitizers, including chemical sanitizing solutions generated on site, and other chemical antimicrobials applied to food-contact surfaces shall:

(1) Meet the requirements specified in 40 CFR 180.940. Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations (Food-contact surface sanitizing solutions),<sup>P</sup> [18] or

(2) Meet the requirements as specified in 40 CFR 180.2020. Pesticide Chemicals Not Requiring a Tolerance or Exemption from Tolerance-Non-food determinations.<sup>P</sup> [18]

(b) Chemical for Washing, Treatment, Storage, and Processing Fruits and Vegetables, Criteria.

(1) Chemicals, including those generated on-site, used to wash or peel raw, whole fruits and vegetables shall:

(A) be an approved food additive listed for this intended use,<sup>P</sup> [17]

(B) be generally recognized as safe (GRAS) for this intended use;<sup>P</sup> [17] or

(C) be the subject of an effective food contact notification for this intended use (only effective for the manufacturer or supplier identified in the notification),<sup>P</sup> [17] and

(D) meet the requirements in 40 CFR 156 Labeling Requirements for Pesticide and Devices.<sup>P</sup> [17]

(2) Ozone as an antimicrobial agent used in the treatment, storage, and processing of fruits and vegetables in a food establishment shall meet the requirements specified in 21 CFR 173.368 Ozone.<sup>P</sup> [17]

(c) Boiler water additives, criteria. Chemicals used as boiler water additives shall meet the requirements specified in 21 CFR §173.310, Boiler Water Additives.<sup>P</sup> [17]

(d) Drying agents, criteria. Drying agents used in conjunction with sanitization shall:

(1) contain only components that are listed as one of the following:

(A) generally recognized as safe for use in food as specified in 21 CFR 182, Substances Generally Recognized as Safe, or 21 CFR 184, Direct Food Substances Affirmed as Generally Recognized as Safe;<sup>P</sup> [17]

**§228.206 (d)(1)(B)**

**§228.208 (c)**

(B) generally recognized as safe for the intended use as specified in 21 CFR 186, Indirect Food Substances Affirmed as Generally Recognized as Safe; <sup>P</sup> [17]

(C) generally recognized as safe for the intended use as determined by experts qualified in scientific training and experience to evaluate the safety of substances added, directly or indirectly, to FOOD as described in 21 CFR 170.30 Eligibility for classification as generally recognized as safe (GRAS), <sup>P</sup> [17]

(D) subject of an effective Food Contact Notification as described in the Federal Food Drug and Cosmetic Act (FFDCA) Section 409(h), <sup>P</sup> [17] or

(E) approved for use as a drying agent under a prior sanction as described in the FFDCA § 201(s)(4); <sup>P</sup> [17]

(F) specifically regulated as an indirect food additive for use as a drying agent as specified in 21 CFR 175 - 178; <sup>P</sup> [17]

(G) approved for use as a drying agent under the threshold of regulation process established by 21 CFR §170.39, Threshold of regulation for substances used in food-contact articles; <sup>P</sup> [17] and

(2) when sanitization is with chemicals, the approval required under paragraph (1)(E) or (G) of this subsection or the regulation as an indirect food additive required under paragraph (1)(F) of this subsection, shall be specifically for use with chemical sanitizing solutions. <sup>P</sup> [17]

§228.207. Lubricants, Incidental Food Contact, Criteria.

Lubricants shall meet the requirements specified in 21 CFR §178.3570, Lubricants with incidental food contact, if they are used on food-contact surfaces, on bearings and gears located on or within food-contact surfaces, or on bearings and gears that are located so that lubricants may leak, drip, or be forced into food or onto food-contact surfaces. <sup>P</sup> [18]

§228.208. Pesticides.

(a) Restricted use pesticides, criteria. Restricted use pesticides specified in §228.204(b)(3) of this title shall meet the requirements specified in 40 CFR 152, Subpart I, Classification of Pesticides. <sup>P</sup> [18]

(b) Rodent bait stations. Rodent bait shall be contained in a covered, tamper-resistant bait station. <sup>P</sup> [18]

(c) Tracking powders, pest control and monitoring.



**§228.208 (c)(1)**

**§228.213**

(1) Except as specified in paragraph (2) of this subsection, a tracking powder pesticide may not be used in a food establishment. <sup>P</sup> [18]

(2) If used, a nontoxic tracking powder such as talcum or flour may not contaminate food, equipment, utensils, linens, and single-service and single-use articles. [37]

§228.209. Medicines.

(a) Restriction and storage.

(1) Except for medicines that are stored or displayed for retail sale, only those medicines that are necessary for the health of employees shall be allowed in a food establishment. <sup>P</sup> [18]

(2) Medicines that are in a food establishment for the employees' use shall be labeled as specified in §228.201 of this title and located to prevent the contamination of food, equipment, utensils, linens, and single-service and single-use articles. <sup>P</sup> [18]

(b) Refrigerated medicines, storage. Medicines belonging to employees or to children in a day care center that require refrigeration and are stored in a food refrigerator shall be:

(1) stored in a package or container and kept inside a covered, leak-proof container that is identified as a container for the storage of medicines; <sup>P</sup> [18] and

(2) located so they are inaccessible to children. <sup>P</sup> [18]

§228.210. First Aid Supplies, Availability. A first aid kit shall be provided. [47]

§228.211. First Aid Supplies, Storage. First aid supplies that are in a food establishment for the employees' use shall be:

(1) labeled as specified under §228.201 of this title; <sup>P</sup> [18] and

(2) stored in a kit or a container that is located to prevent the contamination of food, equipment, utensils, and linens, and single-service and single-use articles. <sup>P</sup> [18]

§228.212. Other Personal Care Items, Storage.

Except as specified in §228.209(b) and §228.211 of this title, employees shall store their personal care items in facilities as specified under §228.187(j)(2) of this title (relating to Physical Facilities). [45]

§228.213. Storage and Display, Separation.

**§228.213**

**§228.221 (a)(4)**

Poisonous or toxic materials shall be stored and displayed for retail sale so they cannot contaminate food, equipment, utensils, linens, and single-service and single-use articles by:

- (1) separating the poisonous or toxic materials by spacing or partitioning;<sup>P</sup> [18] and
- (2) locating the poisonous or toxic materials in an area that is not above food, equipment, utensils, linens, and single-service or single-use articles. <sup>P</sup> [18]

Subchapter H. Requirements Applicable to Certain Establishments.

§228.221. Mobile Food Units.

(a) Mobile Food Unit provisions.

(1) General. Except as otherwise provided in this paragraph and in paragraph (2) of this subsection, the regulatory authority may impose additional requirements to protect against health hazards related to the conduct of the food establishment as a mobile operation, may prohibit the sale of some or all time/temperature control for safety (TCS) food, and when no health hazard will result, may waive or modify requirements of this rule relating to physical facilities, except those requirements as specified in paragraphs (7) and (8) of this subsection; subsection (c)(1)(A) - (E) of this section and §§228.71 - 228.75 of this title (relating to Food). The regulatory authority shall require a Mobile Food Unit operator to demonstrate that the vehicle is readily moveable.

(2) Restricted operation. Mobile Food Units that serve only food that is prepared, packaged in individual servings, transported and stored under conditions meeting the requirements of this chapter, or beverages that are non-time/temperature control for safety (NTCS) food and are dispensed from covered urns or other protected equipment, need not comply with the requirements of these rules pertaining to the necessity of water and sewage systems nor to those requirements pertaining to the cleaning and sanitization of equipment and utensils if the required equipment for cleaning and sanitization exists at its central preparation facility.

(3) Readily movable. The regulatory authority prohibits alteration, removal, attachments, additions, placement or change in, under, or upon the Mobile Food Unit that would prevent or otherwise reduce ready mobility. A regulatory authority may require a Mobile Food Unit to come, on an annual basis or as often as required, to a location designated by the regulatory authority as proof that the Mobile Food Unit is readily moveable. <sup>Pf</sup> [30]

(4) Initial Permitting Inspection. The regulatory authority shall require a Mobile Food Unit to come to a location designated by the authority. The mobile unit must be totally operable at time of inspection, including but not limited to handwash/warewash facilities, refrigeration and wastewater disposal. Required documentation to have available includes:

**§228.221 (a)(4)(A)**

**§228.221 (a)(8)(A)**

(A) Certified Food Manager Certification. <sup>Pf</sup> [21]

(B) Central Preparation Facility Authorization (if required). A signed letter of authorization is required, to verify facility use, if the Central Preparation Facility is not owned by the mobile unit operator. [47]

(C) Central Preparation Facility Inspection Report. A copy of the most current health inspection of the central preparation facility must be maintained on the mobile unit at all times. [47]

(D) Servicing Area Authorization. A signed letter of authorization may be required by the regulatory authority to verify service area use, if the servicing area is not owned by the mobile unit operator. [47]

(E) Menu of all food items to be sold. [47]

(5) Single-service articles. Mobile Food Units shall provide only single service articles for use by the consumer. [40]

(6) Equipment, numbers and capacities.

(A) Cooling, heating, and holding capacities. 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 under Subchapter C of this rule. <sup>Pf</sup> [27]

(B) Manual warewashing, sink compartment requirements. <sup>Pf</sup> [33]

(i) A sink with at least three compartments shall be provided for manually washing, rinsing, and sanitizing equipment and utensils as specified under §228.107(b)(1) of this title. <sup>Pf</sup> [33]

(ii) Sink compartments shall be large enough to accommodate immersion of the largest equipment and utensils as specified under §228.107(b)(2) of this title. <sup>Pf</sup> [33]

(C) At least one handwashing sink shall be available for convenient use by employees and properly provisioned in accordance with §228.175(b) - (c) of this title. <sup>Pf</sup> [31]

(7) Mobile water system materials, design, and operation. Mobile Food Unit water systems shall meet the requirements of §228.149(f) of this title (relating to Water, Plumbing, and Waste).

(8) Mobile Food Unit tank inlet. A Mobile Food Unit's water tank inlet shall be:

(A) 19.1 mm (3/4 inch) in inner diameter or less; <sup>Pf</sup> [32] and

**§228.221 (a)(8)(B)**

**§228.221 (a)(10)(B)**

(B) Provided with a hose connection of a size or type that will prevent its use for any other service. <sup>Pf</sup> [32]

(C) Fill hose and water holding tank shall be labeled as “Potable Water.” [37]

(9) Sewage and other liquid waste.

(A) Waste retention. If liquid waste results from operation of a Mobile Food Unit, the waste shall be stored in a permanently installed retention tank. [44]

(B) Capacity and drainage. A leak-proof sewage holding tank in a Mobile Food Unit shall be:

(i) sized at least 15% larger in capacity than the water supply tank; [44] and

(ii) sloped to a drain that is 25 millimeters (1 inch) in inner diameter or greater, equipped with a shut-off valve. [44]

(C) All connections on the vehicle for servicing the Mobile Food Unit waste disposal facilities shall be of a different size or type than those used for supplying potable water to the Mobile Food Unit. [44]

(D) Discharge liquid waste shall not be discharged from the retention tank while the Mobile Food Unit is in motion. <sup>P</sup> [20]

(E) Flushing a waste retention tank. A tank for liquid waste retention shall be thoroughly flushed and drained in a sanitary manner. <sup>P</sup> [20]

(F) Removing Mobile Food Unit wastes. Sewage and other liquid wastes shall be removed from a Mobile Food Unit at an approved waste servicing area or by a sewage transport vehicle in such a way that a public health hazard or nuisance is not created. <sup>P</sup> [20]

(G) Liquid waste holding tank shall be labeled as “waste water” [44]

(10) Mobile Food Unit water and wastewater exemption.

(A) A roadside vendor that sells only prepackaged food is exempt from these rules pertaining to water and wastewater.

(B) A Mobile Food Unit that prepares food requiring no water for operations and no hand contact with food is exempt from these rules pertaining to water and wastewater if the required cleaning and sanitization equipment exist at its central preparation

**§228.221 (a)(10)(B)**

**§228.221 (c)(1)(E)**

facility. Chemically treated towelettes for handwashing may be used as specified in §228.147(a)(3) of this title (pertaining to Water, Plumbing and Waste).<sup>P</sup> [14]

(11) Toilet rooms, convenience and accessibility. Toilet rooms shall be conveniently located and accessible to employees during all hours of operation. [46]

(b) Central preparation facility.

(1) Supplies, cleaning, and servicing operations. Mobile Food Units shall operate from a central preparation facility or other fixed food establishment and shall report to such location daily for supplies and for cleaning and servicing operations. [45]

(2) Construction. The central preparation facility or other fixed food service establishment, used as a base of operation for Mobile Food Units, shall be constructed and operated in compliance with the requirements of these rules (pertaining to Physical Facilities). [45]

(c) Servicing area and operations.

(1) Protection.

(A) A Mobile Food Unit servicing area shall include at least overhead protection for any supplying, cleaning, or servicing operation. Those areas used only for the loading of water and/or the discharge of sewage and other liquid waste, through the use of a closed system of hoses, need not be provided with overhead protection. [45]

(B) Within the servicing area, the location provided for the flushing and drainage of liquid wastes shall be separate from the location provided for potable water servicing and for the loading and unloading of food and related supplies.<sup>P</sup> [20]

(C) A servicing area will not be required where only packaged food is placed on the Mobile Food Unit or where Mobile Food Units do not contain waste retention tanks.

(D) The surface of the servicing area shall be constructed of a smooth nonabsorbent material, such as concrete or machine-laid asphalt and shall be maintained in good repair, kept clean, and be graded to drain. [45]

(E) Potable water servicing equipment shall be installed in the servicing area according to the Plumbing Code and shall be stored and handled in a way that protects the water and equipment from contamination.<sup>Pf</sup> [32]

**§228.221 (c)(2)**

**§228.222 (d)(3)**

(2) Construction exemption. The construction of the walls and ceilings of the servicing area is exempted from the provisions of §228.173(a) of this title (relating to Physical Facilities).

§228.222. Temporary Food Establishments.

(a) General. The regulatory authority may impose additional requirements to protect against health hazards related to the conduct of the temporary food establishment, may prohibit the sale of some or all time/temperature control for safety (TCS) foods, and when no health hazard will result, such as children's neighborhood beverage stands, may waive or modify requirements of these rules.

(1) Foods that are not prepared on site or that require extensive preparation or cooking must be prepared at a licensed food establishment. <sup>P</sup> [7]

(2) Each temporary establishment may be required by the regulatory authority to have at least one person on-site who has a minimum of an accredited food handler certification. <sup>Pf</sup> [21]

(b) Food temperatures. All food temperature requirements shall be met as contained in Subchapter C (relating to Food). <sup>P</sup> [2] [3]

(c) Ice. Ice that is consumed or that contacts food shall have been made under conditions meeting the requirements of these rules (pertaining to Food). The ice shall be obtained only in blocked, chipped, crushed, or cubed form and in single-use safe plastic or wet-strength paper bags filled and sealed at the point of manufacture. Ice for consumption shall be held in the bags until it is dispensed, and be dispensed in a way that protects it from contamination. <sup>P</sup> [7]

(d) Equipment and utensils.

(1) Design and construction. Equipment and utensils shall be designed and constructed to be durable and to retain their characteristic qualities under normal use conditions. <sup>Pf</sup> [32]

(2) Location and installation. Equipment shall be located and installed and cleaned in a way that prevents food contamination and that also facilitates cleaning of the establishment. [39]

(3) Hot and cold holding equipment. Equipment for cooling or heating food, and holding cold or hot food shall be adequate in number and capacity to provide food temperatures as specified under §§228.71 - 228.75 of this title. <sup>Pf</sup> [27]

**§228.222 (d)(4)**

**§228.222 (k)**

(4) Protection from contamination. Food-contact surfaces of equipment shall be protected from contamination by consumers and other sources. Where necessary to prevent contamination, effective shields for such equipment shall be provided. [37]

(5) Alternative manual warewashing. Alternative manual warewashing equipment, such as receptacles that substitute for the compartments of a 3-compartment sink, may be used when there are special cleaning needs or constraints and the regulatory authority has approved the use of alternative equipment. Each compartment shall be large enough to immerse the largest piece of equipment that will be used. A means to heat water must also be provided. <sup>Pf</sup> [33]

(e) Single-service articles. A temporary food establishment shall provide only single-service articles for use by the consumer. [40]

(f) Water. Water from an approved source shall be made available in a temporary food establishment for food preparation, handwashing, and for cleaning and sanitizing utensils and equipment. Water need not be under pressure but shall come from approved sources which include: commercially bottled drinking water, closed portable water containers, enclosed vehicular water tanks, on-premise water storage tanks, or piping, tubing or hoses connected to an approved source. <sup>P</sup> [19]

(g) Wet storage. Packaged food may not be stored in direct contact with ice or water if the food is subject to the entry of water because of the nature of its packaging, wrapping, or container or its positioning in the ice or water. <sup>P</sup> [9]

(h) Sewage. All waste water and sewage generated from the establishment shall be disposed of through an approved sanitary sewage system that is:

(1) A public sewage system; <sup>P</sup> [20] or

(2) An individual sewage disposal system that is sized, constructed, maintained, and operated according to 30 TAC, Chapter 285, On-Site Sewage Facilities. [44]

(i) Handwashing. Handwashing facilities shall include a container with a spigot that provides potable, clean, warm water; a wastewater container; soap; disposable towels; and a waste receptacle. Handwashing facilities are not required if the only food items offered are commercially pre-packaged foods that are dispensed in their original containers. <sup>Pf</sup> [31]

(j) Floors. If graded to drain, a floor may be concrete, machine-laid asphalt, dirt, or gravel covered with mats, ply-wood, removable platforms, duckboards if covered with mats, or other suitable materials approved by the regulatory authority that effectively control dust and mud. [45]

(k) Ceilings and outer openings of food preparation areas.

**§228.222 (k)(1)**

**§228.223 (b)**

(1) Wall and Ceilings. Wall and ceilings shall be made of wood, canvas, or other materials that protect the interior of the establishment from the weather, windblown dust, birds, and debris. [45]

(2) Outer openings. The outer openings shall be protected against entry of insects and rodents by:

(A) 16 mesh to 25.4 millimeters (16 mesh to 1 inch) screens; [34]

(B) properly designed and installed air curtains; [34] or

(C) other effective means. [34]

(3) Exclusion provision. Paragraph (2) of this subsection does not apply if flying insects and other pests are absent due to the location of the establishment or other limiting condition.

**§228.223. Bed and Breakfast.**

(a) General. A Bed and Breakfast:

(1) shall comply with these minimum requirements of this section if the facility:

(A) has more than seven rooms for rent; or

(B) provides food service other than breakfast to overnight guests

(2) Except as specified in §228.223(a)(1) and (a)(3) of this title, that provides food service to others than to its overnight guests must comply with the rules and regulations applicable to retail food establishments. <sup>Pf</sup>[30]

(3) Limited Bed and Breakfast:

(A) has seven or fewer rooms for rent;

(B) serves only breakfast to over-night guests;

(C) is not a retail food establishment; and

(D) complies with §228.223(b) of this title.

(b) Certified food protection manager. The owner or manager shall successfully complete a food manager's certification course accredited by this department. <sup>Pf</sup>[21]



**§228.223 (c)**

**§228.223 (k)**

(c) Food supplies. Food shall be obtained from approved sources in accordance with §228.62 of this title, shall be in sound condition, and be safe for human consumption. <sup>P</sup> [7]

(d) Food preparation and protection.

(1) Food preparation and protection. Food shall be prepared and protected in accordance with Subchapter C (relating to Food) of this chapter. <sup>P</sup> [9]

(2) Temperature requirements. All food temperature requirements shall be met as contained in Subchapter C (relating to Food) of this chapter. <sup>P</sup> [2] [3]

(e) Cleaning and sanitizing.

(1) Manual. A three compartment sink shall be used if washing, rinsing and sanitizing of utensils and equipment is done manually; or a two compartment sink may be utilized if single service tableware is provided, and if an approved detergent sanitizer is used. <sup>Pf</sup> [33]

(2) Mechanical. Cleaning and sanitizing may be done by spray-type or immersion dishwashing machines or by any other type of machine or device if it is demonstrated that it thoroughly cleans and sanitizes equipment and utensils either by chemical or mechanical sanitization. <sup>Pf</sup> [33]

(f) Personal hygiene. Employees shall conform to good hygienic practices as required in Subchapter B (relating to Management and Personnel) of these rules. <sup>Pf</sup> [22]

(g) Employee restrooms. A restroom shall be available for use by employees. [46]

(h) Equipment and utensil design and construction. All equipment and utensils shall be constructed of safe materials and maintained in good repair. <sup>Pf</sup> [32]

(i) Handsinks.

(1) Location. An accessible and conveniently located handwash sink shall be provided in or immediately adjacent to food preparation areas and restrooms. <sup>Pf</sup> [31]

(2) Intended use. Handsink(s) shall be used for no other purpose other than handwashing. <sup>Pf</sup> [31]

(j) Food-contact surfaces. All food contact surfaces, counters, or work surfaces in the establishment shall be smooth, non-absorbent and easily cleanable. <sup>Pf</sup> [32]

(k) Insect proof/rodent proof.

**§228.223 (k)(1)**

**§228.224 (d)**

(1) Construction. Food service preparation and storage areas shall be constructed and maintained to prevent the entry of pests and other vermin. [34]

(2) Chemical control. Pesticides and rodenticides shall be applied according to §228.208 of this title. <sup>P</sup> [18]

(l) Equipment. Equipment shall be provided to maintain time/temperature control for safety (TCS) foods at the temperatures required in accordance with Subchapter C of these rules. <sup>Pf</sup> [27]

(m) Garbage receptacles. Impervious receptacles shall be provided for storage of garbage and refuse. [44]

(n) Sewage. Sewage shall be disposed through an approved facility that is:

(1) a public sewage system; <sup>P</sup> [20] or

(2) an individual sewage disposal system that is sized, constructed, maintained, and operated according to law 30 TAC, Chapter 285, On-Site Sewage Facilities. <sup>P</sup> [20]

(o) Water supply. Hot and cold water under pressure <sup>Pf</sup> [23] shall be provided and shall be from an approved source that meets the standards in accordance with:

(1) state drinking water quality standards in accordance with 30 TAC §§290.38 – 290.47(Rules and Regulations for Public Water Systems), and 30 TAC §§290.101 - 290.114, 290.117 - 290.119, 290.121, and 290.122 (Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Systems), <sup>P</sup> [19] or

(2) private water system standards as provided in Subchapter J , Private Water Systems. <sup>P</sup> [19]

**§228.224. Outfitter Operations.**

(a) General. Requirements in this section are specific for Outfitter Operations. The regulatory authority may impose additional requirements to protect against health hazards that may be specific to these operations.

(b) Food supplies. Food supplies, including ice, shall be obtained from approved sources. No home prepared products shall be offered. <sup>P</sup> [7]

(c) Food temperatures. All food temperature requirements shall be met as contained in Subchapter C of this chapter (relating to Food). <sup>P</sup> [2] [3]

(d) Food preparation and protection for excursions.

**§228.224 (d)(1)**

**§228.224 (h)**

(1) Except for paragraphs (2) - (4) of this subsection, all food shall be prepared and protected in Central Preparation Facility and meet requirements contained in Subchapter C of this chapter (relating to Food) of this chapter. <sup>P</sup> [9]

(2) Only commercially prepackaged ready to eat foods or ready to eat foods that have been prepared and packaged with no cooking at Central Preparation Facility may be served. <sup>P</sup> [7]

(3) Raw time/temperature control for safety (TCS) foods (TCS) may be cooked on-site if cooked and immediately served. <sup>P</sup> [4]

(4) All food must be stored to protect from contamination as contained in Subchapter C (relating to Food). <sup>P</sup> [9]

(5) Time/temperature Control for Safety (TCS) foods (TCS) that required complex preparation must be served within the first 24 hours of the excursion departure time. <sup>P</sup> [6]

(6) Leftovers. Leftovers shall not be re-heated or re-served. <sup>P</sup> [5] [11]

(e) Warewashing. Alternative manual warewashing equipment, such as receptacles that substitute for the compartments of a multi-compartment sink, may be used for washing and sanitizing utensils when approved by the regulatory authority. Outfitters without effective facilities for cleaning and sanitizing tableware shall only provide single-service articles for use by food employees and consumers. <sup>Pf</sup> [33]

(f) Ice usage.

(1) Ice that is used for cooling food may not be used for human consumption. <sup>P</sup> [9]

(2) Ice used for human consumption must be stored in a clean sanitized container that is properly constructed and maintained in good repair. <sup>Pf</sup> [32]

(g) Potable water.

(1) Potable water shall be used on excursions for human consumption, food preparation, handwashing, and for cleaning and sanitizing utensils and equipment, <sup>P</sup> [19] and

(2) Must be stored in a clean sanitized container that is easily cleanable and good condition. <sup>Pf</sup> [32]

(h) Handwashing. Handwashing facilities shall include a container with a spigot that can be turned on to allow potable, clean, water; a wastewater container; soap; disposable towels; and

**§228.224 (h)**

**§228.225 (d)(1)**

a waste receptacle. Handwashing facilities are not required if the only food items offered are commercially prepackaged foods that are dispensed in their original containers. <sup>Pf</sup> [31]

(i) Equipment. All equipment and utensils intended for food contact shall be approved for food use. <sup>Pf</sup> [32]

(j) Thermometers. Thermometers shall be provided, accurate, and accessible during excursions. <sup>Pf</sup> [29]

(k) Garbage receptacles. Impervious receptacles shall be provided for storage of garbage and refuse. [44]

(l) Certified food protection manager. If food other than pre-packaged ready to eat food is being served, at least one guide during the excursion shall successfully complete a food manager's certification course accredited by this department. <sup>Pf</sup> [21]

(m) An outfitter operation must have a central preparation facility as specified in Subchapter A (pertaining to definitions). [45]

**§228.225. Self-Service Food Market.**

(a) Self-Service Food Markets shall comply with the minimum standards of this section.

(b) Self-Service Food Markets shall:

(1) be equipped with 24/7 video surveillance records of consumers viewing, selecting, handling, and purchasing products that identify these customers. Video surveillance records must be maintained and available for the regulatory authority for a period of fourteen (14) calendar days. <sup>Pf</sup> [30]

(2) provide information to the regulatory authority as to the responsible party that will be available for routine inspections. <sup>Pf</sup> [30]

(c) Pre-packaged food sold at a Self-Service Food Market shall:

(1) meet the labeling requirements as specified in §228.62(a)(3) of this title; <sup>P</sup> [7]  
and

(2) be tamper evident. <sup>P</sup> [7]

(d) A food specified under §228.75(g)(1) or (2) or (h) of this title shall be discarded if it:

(1) exceeds the temperature or time specified in §228.75(g)(1) and (2) of this title, except time that the product is frozen; <sup>P</sup> [6]

**§228.225 (d)(2)**

**§228.225 (i)**

(2) is in a container or package that does not bear an expiration date or day; <sup>P</sup> [6]  
or

(3) is not appropriately marked with a date or day that exceeds the temperature and time combination as specified in §228.75(g)(1) and (2) of this title. <sup>P</sup> [6]

(e) All self-service food market display units offering refrigerated, time/temperature controlled for safety (TCS) food shall have an automatic shut-off control or a plan approved by the regulatory authority that prevents the market or market equipment from dispensing food if:

(1) there is a power failure, mechanical failure, or other condition that results in failure of the equipment to maintain food temperatures as specified under Subchapter D of these rules; <sup>Pf</sup> [27] and

(2) where a condition specified under paragraph (1) of this subsection occurs, until the equipment is serviced and restocked with food that has been maintained at temperatures specified under Subchapter C (Pertaining to Food) of these rules. <sup>Pf</sup> [27]

(f) When a condition specified under subsection (e)(1) of this section occurs, the ambient temperature may not exceed forty-one degrees Fahrenheit (five degrees Celsius) for more than thirty minutes immediately after the display is filled, serviced, or restocked. <sup>Pf</sup> [27]

(g) All self-service food market display units offering time/temperature control for safety (TCS) food, shall be:

(1) equipped with a self-closing door; <sup>Pf</sup> [27] or

(2) maintained at forty-one degrees Fahrenheit (five degrees Celsius) if it is an open display unit. <sup>Pf</sup> [27]

(h) Self-Service Food Markets shall have a sign readily visible from the automated payment kiosk stating:

(1) the name of the business to whom complaints/ comments shall be addressed, [47]

(2) the address of the business responsible for the market, [47] and

(3) the responsible business' telephone number and email or web information, when applicable. [47]

(i) When a retail food establishment operating as a Self-Service Food Market incorporates the provision in this section, they will not be required to maintain a person in charge onsite as specified under §228.34 of this title. <sup>Pf</sup> [21] [22]

**§228.241**

**§228.243 (a)**

Subchapter I. Compliance.

§228.241. Use for Intended Purpose.

Public health protection.

(1) The regulatory authority shall apply these rules to promote its underlying purpose, as specified in §228.1 of this title (relating to Purpose), of safeguarding public health and ensuring that food is safe, unadulterated, and honestly presented when offered to the consumer.

(2) In enforcing the provisions of these rules, the regulatory authority shall assess existing facilities or equipment that were in use before the effective date of these rules based on the following considerations:

(A) whether the facilities or equipment are in good repair and capable of being maintained in a sanitary condition;

(B) whether food-contact surfaces comply with §228.101 of this title (relating to Equipment, Utensils, and Linens); and

(C) whether the capacities of cooling, heating, and holding equipment are sufficient to comply with §228.107(a) of this title.

(D) the existence of a documented agreement with the permit holder that the facilities or equipment will be replaced as specified under §228.248(7) of this title.

§228.242. Additional Requirements. Preventing health hazards, provision for conditions not addressed.

(1) Option to impose additional requirements. If necessary to protect against public health hazards or nuisances, the regulatory authority may impose specific requirements in addition to the requirements contained in these rules that are authorized by law.

(2) Required documentation. The regulatory authority shall document the conditions that necessitate the imposition of additional requirements and the underlying public health rationale. The documentation shall be provided to the permit applicant or permit holder and a copy shall be maintained in the regulatory authority's file for the food establishment.

§228.243. Variances.

(a) Modifications and waivers. The regulatory authority may grant a variance by modifying or waiving the requirements of these rules if in the opinion of the regulatory authority a health hazard or nuisance will not result from the variance. If a variance is granted, the

**§228.243 (a)**

**§228.244 (a)**

regulatory authority shall retain the information specified in subsection (b) of this section in its records for the food establishment.

(b) Documentation of proposed variance and justification. Before a variance from a requirement of these rules is approved, the information that shall be provided by the person requesting the variance and retained in the regulatory authority's file on the food establishment includes:

(1) a statement of the proposed variance of the rule requirement citing relevant rule section numbers; <sup>Pf</sup> [25]

(2) an analysis of the rationale for how the potential public health hazards and nuisances addressed by the relevant rule sections will be alternatively addressed by the proposal; <sup>Pf</sup> [25] and

(3) a HACCP plan if required as specified in §228.244(c) of this title that includes the information specified in §228.244(b) of this title, as it is relevant to the variance requested. <sup>Pf</sup> [25]

(c) Conformance with approved procedures. If the regulatory authority grants a variance as specified in subsection (a) of this section, or a HACCP plan is otherwise required as specified in §228.244(c) of this title, the food establishment shall:

(1) comply with the HACCP plans and procedures that are submitted and approved as specified in §228.244(d) of this title as a basis for the modification or waiver; <sup>Pf</sup> [25] and

(2) maintain and provide to the regulatory authority, upon request, records specified in §228.244(d)(4) and (5) of this title that demonstrate that the following are routinely employed:

(A) procedures for monitoring critical control points; <sup>Pf</sup> [25]

(B) monitoring of the critical control points; <sup>Pf</sup> [25]

(C) verification of the effectiveness of an operation or process; <sup>Pf</sup> [25] and

(D) necessary corrective actions if there is failure at a critical control point. <sup>Pf</sup> [25]

**§228.244. Facility and Operating Plans.**

(a) When plans are required. A permit applicant or permit holder may be required to submit to the regulatory authority properly prepared plans and specifications for review and

**§228.244 (a)**

**§228.244 (c)(1)(A)**

approval before:

(1) the construction of a food establishment; <sup>Pf</sup> [25]

(2) the conversion of an existing structure for use as a food establishment; <sup>Pf</sup> [25]

or

(3) the remodeling of a food establishment or a change of type of food establishment or food operation as specified under Subchapter L of the Chapter (pertaining to License/Permit Application), or under the conditions set by the regulatory authority, if the regulatory authority determines that plans and specifications are necessary to ensure compliance with this code. <sup>Pf</sup> [25]

(b) Contents of the plans and specifications. The plans and specifications for a food establishment, including a food establishment specified under §228.244(c) of this title, shall include, as required by the regulatory authority based on the type of operation, type of food preparation, and foods prepared, the following information to demonstrate conformance with code provisions:

(1) intended menu;

(2) anticipated volume of food to be stored, prepared, and sold or served;

(3) proposed layout, mechanical schematics, construction materials, and finish schedules;

(4) proposed equipment types, manufacturers, model numbers, locations, dimensions, performance capacities, and installation specifications;

(5) evidence that standard procedures that ensure compliance with the requirements of this rule are developed or are being developed; and

(6) other information that may be required by the regulatory authority for the proper review of the proposed construction, conversion or modification, and procedures for operating a food establishment.

(c) When a HACCP plan is required.

(1) Before engaging in an activity that requires a HACCP plan, a food establishment shall submit to the regulatory authority for approval a properly prepared HACCP plan as specified under subsection (d) of this section and the relevant provisions of these rules if:

(A) submission of a HACCP plan is required according to law;



**§228.244 (c)(1)(B)**

**§228.244 (d)(4)(C)**

(B) a variance is required as specified under §§228.71(a)(4)(D) and 228.76, or 228.106(j)(2) of this title; or

(C) the regulatory authority determines that a food preparation or processing method requires a variance based on a plan submittal specified under §228.244(b) of this title, an inspectional finding or a variance request.

(2) A food establishment shall have a properly prepared HACCP plan as specified under subsection (d) of this section.

(3) Before engaging in reduced oxygen packaging without a variance as specified under §228.77 of this title, a food establishment shall submit a properly prepared HACCP plan to the regulatory authority.

(d) Contents of a HACCP plan. For a food establishment that is required under subsection (a) of this section to have a HACCP plan, the plan and specifications shall indicate:

(1) a categorization of the types of time/temperature control for safety (TCS) foods that are specified in the menu such as soups and sauces, salads, and bulk, solid foods such as meat roasts, or of other foods that are specified by the regulatory authority; <sup>Pf</sup> [25]

(2) a flow diagram by specific food or category type identifying critical control points and providing information on the following:

(A) ingredients, materials, and equipment used in the preparation of that food; <sup>Pf</sup> [25] and

(B) formulations or recipes that delineate methods and procedural control measures that address the food safety concerns involved; <sup>Pf</sup> [25]

(3) food employee and supervisory training plan that addresses the food safety issues of concern; <sup>Pf</sup> [25]

(4) a statement of standard operating procedures for the plan under consideration including clearly identifying:

(A) each critical control point; <sup>Pf</sup> [25]

(B) the critical limits for each critical control point, <sup>Pf</sup> [25]

(C) the method and frequency for monitoring and controlling each critical control point by the food employee designated by the person in charge; <sup>Pf</sup> [25]

**§228.244 (d)(4)(D)**

**§228.248 (2)**

(D) the method and frequency for the person in charge to routinely verify that the food employee is following standard operating procedures and monitoring critical control points; <sup>Pf</sup> [25]

(E) action to be taken by the person in charge if the critical limits for each critical control point are not met; <sup>Pf</sup> [25] and

(F) records to be maintained by the person in charge to demonstrate that the HACCP plan is properly operated and managed; <sup>Pf</sup> [25] and

(5) Additional scientific data or other information, as required by the regulatory authority, supporting the determination that food safety is not compromised by the proposal. <sup>Pf</sup> [25]

§228.245. Confidentiality, Trade Secrets.

The regulatory authority shall treat as confidential in accordance with the requirements of the Public Information Act, Texas Government Code, Chapter 552, information that meets the criteria specified in law for a trade secret and is contained on inspection report forms and in the plans and specifications submitted as specified in §228.244(b) and (d) of this title.

§228.246. Construction Inspection and Approval, Preoperational Inspections.

The regulatory authority may conduct one or more preoperational inspections to verify that the food establishment is constructed and equipped in accordance with the approved plans and approved modifications of those plans, has established standard operating procedures as specified under §228.244(b)(5) of this title, and is in compliance with this chapter.

§228.247. Permit Requirement, Prerequisite for Operation.

A person may not operate a food establishment without a valid permit or license to operate issued by the regulatory authority. <sup>Pf</sup> [30]

§228.248. Conditions of Retention, Responsibilities of the Permit Holder.

Upon acceptance of the permit issued by the regulatory authority, the permit holder in order to retain the permit shall:

(1) post the permit in a location in the food establishment that is conspicuous to consumers; [47]

(2) comply with the provisions of these rules including the conditions of a granted variance as specified under §228.243(c) and §228.244(b) of this title;

**§228.248 (3)**

**§228.249**

(3) if a food establishment is required under §228.244(c) of this title to operate under a HACCP plan, comply with the plan as specified under §228.243(c) of this title;

(4) immediately contact the regulatory authority to report an illness of a food employee as specified under §228.35(2) of this title (relating to Management and Personnel);

(5) immediately discontinue operations and notify the regulatory authority if an imminent health hazard may exist as specified under §228.252(a) of this title;

(6) allow representatives of the regulatory authority access to the food establishment as specified under §228.250(b) of this title;

(7) replace existing facilities and equipment specified in §228.241 of this title with facilities and equipment that comply with these rules if:

(A) the regulatory authority directs the replacement because the facilities and equipment constitute a public health hazard or nuisance or no longer comply with the criteria upon which the facilities and equipment were accepted;

(B) the regulatory authority directs the replacement of the facilities and equipment because of a change of ownership; or

(C) the facilities and equipment are replaced in the normal course of operation;

(8) comply with directives of the regulatory authority including time frames for corrective actions specified in inspection reports, notices, orders, warnings, and other directives issued by the regulatory authority in regard to the permit holder's food establishment or in response to community emergencies;

(9) accept notices issued and served by the regulatory authority according to law; and

(10) be subject to the administrative, civil, injunctive, and criminal remedies authorized in law for failure to comply with these rules or a directive of the regulatory authority, including time frames for corrective actions specified in inspection reports, notices, orders, warnings, and other directives.

(11) Notify customers that a copy of the most recent establishment inspection report is available upon request by posting a sign or placard in a location in the food establishment that is conspicuous to customers or by another method acceptable to the regulatory authority. [47]

§228.249. Inspection Frequency, Performance-based and Risk Based.

**§228.249 (a)**

**§228.250 (a)**

(a) The regulatory authority shall inspect each food establishment at least once every six months.

(b) If the regulatory authority cannot meet this inspection frequency, frequency shall be prioritized and uniformly applied throughout the jurisdiction based upon assessment of a food establishment's history of compliance with these rules and the potential for causing foodborne illness by evaluating:

(1) past performance, for nonconformance with code or HACCP plan requirements that are priority items or priority foundation items;

(2) past performance, for numerous or repeat violations of code or HACCP plan requirements that are core items;

(3) past performance, for complaints investigated and found to be valid;

(4) the hazards associated with the particular foods that are prepared, stored, or served;

(5) the type of operation including the methods and extent of food storage, preparation, and service;

(6) the number of people served; and

(7) whether the population served is a highly susceptible population.

(8) any other risk factors deemed relevant to the operation by the regulatory authority.

(c) The regulatory authority should periodically inspect throughout its permit period a temporary food establishment that prepares, sells, or serves unpackaged time/temperature control for safety (TCS) food and that:

(1) Has improvised rather than permanent facilities or equipment for accomplishment functions such as handwashing, food preparation and protection, Food temperature control, warewashing, providing drinking water, waste retention and disposal,, and insect and rodent control; or

(2) Has inexperienced food employees.

**§228.250. Competency of Inspectors and Access.**

(a) Competency of inspectors. An individual conducting inspections of retail food establishments should be a Registered Professional Sanitarian in Texas or a Sanitarian-in-

**§228.250 (a)**

**§228.250 (d)**

Training in Texas, as defined in §140.102 of this title (relating to Definitions), or should meet the FDA Voluntary National Retail Food Regulatory Program Standards basic curriculum and field training elements in order to:

(1) assure application of basic scientific principles, including HACCP principles of food safety, during inspections;

(2) properly conduct foodborne illness investigations;

(3) assure uniformity in the interpretations of these rules; and

(4) assure fair and uniform enforcement of these rules.

(b) Access allowed at reasonable times after due notice. After the regulatory authority presents official credentials and provides notice of the purpose of, and an intent to conduct, an inspection, the person in charge shall allow the regulatory authority to determine if the food establishment is in compliance with these rules by allowing access to the establishment, allowing inspection, and providing information and records specified in these rules and to which the regulatory authority is entitled according to law, during the food establishment's hours of operation and other reasonable times.

(c) Refusal, notification of right to access, and final request for access. If a person denies access to the regulatory authority, the regulatory authority shall:

(1) inform the person that:

(A) the food establishment is required to allow access to the regulatory authority as specified under this subsection;

(B) access is a condition of the acceptance and retention of a food establishment permit to operate as specified under §228.248(6) of this title; and

(C) if access is denied, an order issued by the appropriate authority allowing access, hereinafter referred to as an inspection warrant, may be obtained according to law; and

(2) make a final request for access.

(d) Refusal, reporting. If after the regulatory authority presents credentials and provides notice as specified under subsection (b) of this section, explains the authority upon which access is requested, and makes a final request for access as specified in subsection (c) of this section, the person in charge continues to refuse access, the regulatory authority shall provide details of the denial of access on an inspection report form.

**§228.250 (e)**

**§228.251 (b)**

(e) Inspection warrant to gain access. If denied access to a food establishment for an authorized purpose and after complying with subsection (c) of this section, the regulatory authority may issue, or apply for the issuance of, an inspection warrant to gain access as provided in law.

§228.251. Report of Findings.

(a) Documenting information and observations. The regulatory authority shall document on an inspection report form:

(1) administrative information about the food establishment's legal identity, street and mailing addresses, inspection date, and other information such as type of water supply and sewage disposal, status of the permit, and personnel certificates that may be required; and

(2) specific factual observations of violative conditions or other deviations from these rules that require correction by the permit holder including:

(A) failure of the person in charge to demonstrate knowledge of foodborne illness prevention, application of HACCP principles, and the requirements of these rules specified under §228.32 of this title;

(B) failure of food employees, conditional employees, and the person in charge to report a disease or medical condition as specified under §228.35(b) and (d) of this title;

(C) nonconformance with critical/priority items or priority foundation items of these rules.

(D) failure of the appropriate food employees to demonstrate their knowledge of, and ability to perform in accordance with, the procedural, monitoring, verification, and corrective action practices required by the regulatory authority as specified under §228.243(c) of this title;

(E) failure of the person in charge to provide records required by the regulatory authority for determining conformance with a HACCP plan as specified under §228.244(d)(4)(F) of this title; and

(F) nonconformance with critical limits of a HACCP plan; and

(3) a summary of the inspectional findings that totals weighted demerit values for the inspection items.

(b) Specifying time frame for corrections. The regulatory authority shall specify on the inspection report form the time frame for correction of the violations as specified under §228.252, §228.253(a) and 228.254(a) of this title.

**§228.251 (c)**

(c) Issuing report and obtaining acknowledgment of receipt. At the conclusion of the inspection and according to law, the regulatory authority shall provide a copy of the completed inspection report and the notice to correct violations to the permit holder or to the person in charge, and request a signed acknowledgment of receipt.

(d) Refusal to sign acknowledgment. The regulatory authority shall:

(1) inform a person who declines to sign an acknowledgment of receipt of inspectional findings as specified in subsection (c) of this section that:

(A) an acknowledgment of receipt is not an agreement with findings;

(B) refusal to sign an acknowledgment of receipt will not affect the permit holder's obligation to correct the violations noted in the inspection report within the time frames specified; and

(C) a refusal to sign an acknowledgment of receipt is noted in the inspection report and conveyed to the regulatory authority's historical record for the food establishment; and

(2) make a final request that the person in charge sign an acknowledgment receipt of inspectional findings.

(e) Public information. Except as specified in §228.245 of this title, the regulatory authority shall treat the inspection report as a public document and shall make it available for disclosure to a person who requests it as provided in law.

(f) Inspection reports. For the purposes of Health and Safety Code, Chapter 437, the department adopts the Retail Food Establishment Inspection Report form as specified in the following figure:

Figure: 25 TAC, §228.251(f)

Retail Food Establishment Inspection Report

Date:	Time in:	Time out:	License/Permit #	Est. Type	Risk Category	Page ___ of ___
<b>Purpose of Inspection:</b> <input type="checkbox"/> <b>1-Compliance</b> <input type="checkbox"/> <b>2-Routine</b> <input type="checkbox"/> <b>3-Field Investigation</b> <input type="checkbox"/> <b>4-Visit</b> <input type="checkbox"/> <b>5-Other</b> <b>TOTAL/SCORE</b>						
Establishment Name:			Contact/Owner Name:		* Number of Repeat Violations: ____ ✓ Number of Violations COS: ____	
Physical Address:			City/County:	Zip Code:	Phone:	Follow-up: Yes No (circle one)
<b>Compliance Status:</b> <b>OUT</b> = not in compliance <b>IN</b> = in compliance <b>NO</b> = not observed <b>NA</b> = not applicable <b>COS</b> = corrected on site <b>R</b> = repeat violation Mark the appropriate points in the <b>OUT</b> box for each numbered item   Mark '✓' a checkmark in appropriate box for <b>IN, NO, NA, COS</b> Mark an asterisk '*' in appropriate box for <b>R</b>						
<b>Priority Items (3 Points) violations Require Immediate Corrective Action not to exceed 3 days</b>						
<b>Compliance Status</b> <b>OUT</b> <b>IN</b> <b>NO</b> <b>NA</b> <b>COS</b>			<b>Compliance Status</b> <b>OUT</b> <b>IN</b> <b>NO</b> <b>NA</b> <b>COS</b>			
<b>Time and Temperature for Food Safety</b> (F = degrees Fahrenheit)			<b>Employee Health</b>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Proper cooling time and temperature
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Proper Cold Holding temperature(41°F/ 45°F)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Proper Hot Holding temperature(135°F)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Proper cooking time and temperature
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Proper reheating procedure for hot holding (165°F in 2 Hours)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Time as a Public Health Control; procedures & records
<b>Approved Source</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Food and ice obtained from approved source; Food in good condition, safe, and unadulterated; parasite destruction
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Food Received at proper temperature
<b>Protection from Contamination</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. Food Separated & protected, prevented during food preparation, storage, display, and tasting
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. Food contact surfaces and Returnables ; Cleaned and Sanitized at _____ ppm/temperature
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11. Proper disposition of returned, previously served or reconditioned
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12. Management, food employees and conditional employees; knowledge, responsibilities, and reporting
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13. Proper use of restriction and exclusion; No discharge from eyes, nose, and mouth
<b>Preventing Contamination by Hands</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14. Hands cleaned and properly washed/ Gloves used properly
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15. No bare hand contact with ready to eat foods or approved alternate method properly followed (APPROVED Y___N___)
<b>Highly Susceptible Populations</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. Pasteurized foods used; prohibited food not offered Pasteurized eggs used when required
<b>Chemicals</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17. Food additives; approved and properly stored; Washing Fruits & Vegetables
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18. Toxic substances properly identified, stored and used
<b>Water/ Plumbing</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19. Water from approved source; Plumbing installed; proper backflow device
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20. Approved Sewage/Wastewater Disposal System, proper disposal
<b>Priority Foundation Items (2 Points) violations Require Corrective Action within 10 days</b>						
<b>Compliance Status</b> <b>OUT</b> <b>IN</b> <b>NO</b> <b>NA</b> <b>COS</b>			<b>Compliance Status</b> <b>OUT</b> <b>IN</b> <b>NO</b> <b>NA</b> <b>COS</b>			
<b>Demonstration of Knowledge/ Personnel</b>			<b>Food Temperature Control/ Identification</b>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21. Person in charge present, demonstration of knowledge, and perform duties/ Certified Food Manager (CFM)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22. Food Handler/ no unauthorized persons/ personnel
<b>Safe Water, Recordkeeping and Food Package Labeling</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23. Hot and Cold Water available; adequate pressure, safe
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. Required records available (shellstock tags; parasite destruction); Packaged Food labeled
<b>Conformance with Approved Procedures</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25. Compliance with Variance, Specialized Process, and HACCP plan; Variance obtained for specialized processing methods; manufacturer instructions
<b>Consumer Advisory</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26. Posting of Consumer Advisories; raw or under cooked foods (Disclosure/Reminder/Buffer Plate)/ Allergen Label
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27. Proper cooling method used; Equipment Adequate to Maintain Product Temperature
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28. Proper Date Marking and disposition
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29. Thermometers provided, accurate, and calibrated; Chemical/ Thermal test strips
<b>Permit Requirement, Prerequisite for Operation</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30. Food Establishment Permit (Current & Valid)
<b>Utensils, Equipment, and Vending</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31. Adequate handwashing facilities: Accessible and properly supplied, used
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32. Food and Non-food Contact surfaces cleanable, properly designed, constructed, and used
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33. Warewashing Facilities; installed, maintained, used/ Service sink or curb cleaning facility provided
<b>Core Items (1 Point) Violations Require Corrective Action Not to Exceed 90 Days or Next Inspection , Whichever Comes First</b>						
<b>Compliance Status</b> <b>OUT</b> <b>IN</b> <b>NO</b> <b>NA</b> <b>COS</b>			<b>Compliance Status</b> <b>OUT</b> <b>IN</b> <b>NO</b> <b>NA</b> <b>COS</b>			
<b>Prevention of Food Contamination</b>			<b>Food Identification</b>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	34. No Evidence of Insect contamination, rodent/other animals
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35. Personal Cleanliness/eating, drinking or tobacco use
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36. Wiping Cloths; properly used and stored
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37. Environmental contamination
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	38. Approved thawing method
<b>Proper Use of Utensils</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	39. Utensils, equipment, & linens; properly used, stored, dried, & handled/ In use utensils; properly used
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40. Single-service & single-use articles; properly stored and used
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	41. Original container labeling (Bulk Food)
<b>Physical Facilities</b>						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	42. Non-Food Contact surfaces clean
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	43. Adequate ventilation and lighting; designated areas used
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	44. Garbage and Refuse properly disposed; facilities maintained
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	45. Physical facilities installed, maintained, and clean
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	46. Toilet Facilities; properly constructed, supplied, and clean
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	47. Other Violations
<b>Received by:</b> (signature)			<b>Print:</b>		<b>Title: Person In Charge/ Owner</b>	
<b>Inspected by:</b> (signature)			<b>Print:</b>		<b>Business Email:</b>	



- 1      Cooling
- TCS\* food cooled from 135° F to 70° F more than 2 hours OR 135° F to 41° F (45° F) more than 6 hours; OR prepared food cooled to 41° F (45° F) more than 4 hours:
- Action: Voluntary destruction, rapid reheating of cooked foods if less than 4 hours*
- 2      Cold Hold
- TCS food held above 41° F (45° F) more than 4 hours:
- Action: Voluntary destruction*
- TCS food held above 41° F (45° F) less than 4 hours:
- Action: Rapid cool (e.g. ice bath)*
- 3      Hot Hold
- TCS food held below 135° F more than 4 hours:
- Action: Voluntary destruction*
- TCS food held below 135° F less than 4 hours:
- Action: Rapid reheat to 165° F or more*
- 4      Cooking
- TCS food undercooked:
- Action: Re-cook to proper temperature*
- 5      Rapid Reheating
- TCS food improperly reheated:
- Action: Reheat rapidly to 165° F*
- 7      Approved Source/Sound Condition
- Foods from unapproved sources/unsound condition:
- Action: Voluntary destruction*
- 9      Cross-Contamination of Raw/Cooked Foods
- Ready-To-Eat food contaminated by raw TCS food:
- Action: Voluntary destruction of ready-to-eat foods*
- 14     Handwashing
- Food employees observed not washing hands:
- Action: Instruct employees to wash hands as specified in the Rules.*
- 15     Proper Handling of Ready-to-Eat Foods
- Employee did not properly wash and sanitize hands before touching ready-to-eat food with bare hands:
- Action: Voluntary destruction*
- 19, 23   Water Supply
- Facility does not have water for washing hands, preparing food, or cleaning equipment/utensils:
- Action: Voluntary suspension of food preparation*

\* Time/temperature Control for Safety (TCS) Food



**§228.252**

**§228.253 (b)(1)**

§228.252. Imminent Health Hazard.

(a) Ceasing operations and reporting.

(1) Except as specified in paragraph (2) of this subsection, a food establishment shall immediately discontinue operations and notify the regulatory authority if an imminent health hazard may exist because of an emergency such as a fire, flood, extended interruption of electrical or water service, sewage backup, misuse of poisonous or toxic materials, onset of an apparent foodborne illness outbreak, gross insanitary occurrence or condition, or other circumstance that may endanger public health. <sup>P</sup> [12]

(2) A permit holder need not discontinue operations in an area of an establishment that is unaffected by the imminent health hazard.

(b) Resumption of operations. If operations are discontinued as specified under paragraph (1) of this subsection or otherwise according to law, the permit holder shall obtain approval from the regulatory authority before resuming operations.

§228.253. Priority Item/Priority Foundation Item, Time Frame for Correction.

(a) Timely correction.

(1) Except as specified in paragraph (2) of this subsection, the food establishment shall at the time of inspection implement immediate corrective actions of a priority item/priority foundation item of these rules and implement corrective actions for a HACCP plan provision that is not in compliance with its critical limit. <sup>Pf</sup> [30]

(2) Considering the nature of the potential hazard involved and the complexity of the corrective action needed, the regulatory authority may agree to or specify a longer time frame, not to exceed;

(A) 3 calendar days after the inspection, for the permit holder to correct violations of a priority item; or

(B) 10 calendar days after the inspection, for the food establishment to correct priority foundation items or HACCP plan deviations.

(b) Verification and documentation of correction.

(1) After observing at the time of inspection a correction of a priority item or priority foundation item or a HACCP plan deviation, the regulatory authority shall enter the violation and information about the corrective action on the inspection report.

**§228.253 (b)(2)**

**§228.256 (a)**

(2) As specified under subsection (a)(2) of this section, after receiving notification that the food establishment has corrected a priority item or priority foundation item or HACCP plan deviation, or at the end of the specified period of time, the regulatory authority shall verify correction of the violation, document the information on an inspection report, and enter the report in the regulatory authority's records.

(3) When the total cumulative demerit value of an establishment exceeds 30 demerits, the establishment shall initiate immediate corrective action on all identified priority items or priority foundation items and shall initiate corrective action on all other violations within 48 hours. One or more reinspections shall be conducted at reasonable time intervals to assure correction.

(4) In the case of temporary food establishments, all priority items or priority foundation items must be corrected immediately and other violations must be corrected within 24 hours or sooner if required by the regulatory authority. If violations are not corrected, the establishment shall immediately cease food operations until authorized to resume by the regulatory authority.

**§228.254. Core Item Violations, Time Frame for Correction.**

(a) Time frame. Except as specified in subsection (b) of this section, the food establishment shall correct core items by a date and time agreed to or specified by the regulatory authority but no later than 90 calendar days after the inspection.

(b) Extension of compliance schedule. The regulatory authority may approve a compliance schedule that extends beyond the time limits specified under subsection (a) of this section if a written schedule of compliance is submitted by the food establishment and no health hazard exists or will result from allowing an extended schedule for compliance.

**§228.255. Examination and Detention of Food.**

The regulatory authority may examine and collect samples of food as often as necessary for the enforcement of these rules. A receipt for samples shall be issued by the regulatory authority. The department shall, upon written notice to the owner or person in charge specifying the reason therefore, place under detention any food which it has probable cause to believe is adulterated or misbranded in accordance with the provisions of the Texas Food, Drug, and Cosmetic Act, Health and Safety Code, Chapter 431.

**§228.256. Investigation and Control.**

(a) Obtaining information: personal history of illness, medical examination, and specimen analysis. The regulatory authority shall act when it has reasonable cause to believe that a food employee or conditional employee has possibly transmitted disease; may be infected with a disease in a communicable form that is transmissible through food; may be a carrier of infectious

**§228.256 (a)**

**§228.256 (d)**

agents that cause a disease that is transmissible through food; or is affected with a boil, an infected wound, or acute respiratory infection, by:

(1) securing a confidential medical history of the employee or conditional employee suspected of transmitting disease or making other investigations as deemed appropriate; and

(2) requiring appropriate medical examinations, including collection of specimens for laboratory analysis, of a suspected employee, other employees or conditional employee.

(b) Restriction or exclusion of food employee, or summary suspension of permit. Based on the findings of an investigation related to a food employee or conditional employee who is suspected of being infected or diseased, the regulatory authority may issue an order to the suspected food employee or permit holder instituting one or more of the following control measures:

(1) restricting the food employee or conditional employee;

(2) excluding the food employee or conditional employee; or

(3) closing the food establishment by summarily suspending a permit to operate in accordance with law.

(c) Restriction or exclusion order: warning or hearing not required, information required in order. Based on the findings of the investigation as specified in subsection (a) of this section and to control disease transmission, the regulatory authority may issue an order of restriction or exclusion to a suspected food employee or the permit holder without prior warning, notice of a hearing, or a hearing if the order:

(1) states the reasons for the restriction or exclusion that is ordered;

(2) states the evidence that the food employee or permit holder shall provide in order to demonstrate that the reasons for the restriction or exclusion are eliminated;

(3) states that the suspected food employee or the permit holder may request an appeal hearing by submitting a timely request as provided in law; and

(4) provides the name and address of the regulatory authority representative to whom a request for an appeal hearing may be made.

(d) Removal of restriction or exclusion. The regulatory authority shall release a food employee or conditional employee from restriction or exclusion according to Health and Safety Code, §438.033, and the following conditions:

**§228.256 (d)(1)**

**§228.257 (c)**

(1) a food employee who was infected with *Salmonella typhi* if the food employee's stools are negative for *S. typhi* based on testing of at least three consecutive stool specimen cultures that are taken:

- (A) not earlier than one month after onset;
- (B) at least 48 hours after discontinuance of antibiotics; and
- (C) at least 24 hours apart;

(2) if one of the cultures taken as specified in paragraph (1) of this subsection is positive, repeat cultures are taken at intervals of one month until at least three consecutive negative stool specimen cultures are obtained;

(3) a food employee who was infected with *Shigella* spp. or Shiga toxin-producing *Escherichia coli* if the employee's stools are negative for *Shigella* spp. or Shiga toxin-producing *Escherichia coli* based on testing of two consecutive stool specimen cultures that are taken:

- (A) not earlier than 48 hours after discontinuance of antibiotics; and
- (B) at least 24 hours apart; and

(4) a food employee who was infected with hepatitis A virus if:

- (A) symptoms cease; or
- (B) at least two blood tests show falling liver enzymes.

**§228.257. Reporting of Communicable Diseases.**

(a) Who shall report. Certain persons, as required in 25 TAC §97.2 (relating to Who Shall Report), shall report certain confirmed and suspected foodborne diseases.

(b) What to report. Confirmed and suspected cases of the following diseases, including, but not limited to the following, are reportable: botulism; campylobacteriosis; cryptosporidiosis; *Escherichia coli* 0157:H7; hepatitis A, acute viral; listeriosis; salmonellosis; shigellosis; trichinosis; and *Vibrio* infection.

(c) When to report. Reporting of communicable diseases shall be done in accordance with 25 TAC §97.4 (relating to When To Report a Condition or Isolate; Where to Submit an Isolate; Where to Report a Condition or Isolate).

**§228.257 (d)**

**§228.272 (a)(3)**

(d) Where to report. Persons required to report communicable diseases shall report to the local health authority, or in the case where there is no local health authority, the report shall be made to the department's Regional Director as required in 25 TAC §97.5 (relating to Where To Report a Condition or Isolate; Where To Submit an Isolate).

(e) Reporting and other duties of local health authorities and regional directors. Local health authorities and regional directors shall report communicable diseases to the department as provided for in 25 TAC §97.6 (relating to Reporting and Other Duties of Local Health Authorities and Regional Directors).

Subchapter J. Private Water Systems.

§228.271. Water Supply and Pressure.

Food Service Establishments having water supplies that do not meet the definition of a public water system as defined by Title 30 of the Texas Administrative Code Chapter (30 TAC) §290.38(66) or that are not regulated by the Texas Commission on Environmental Quality (TCEQ) shall comply with the requirements of this subchapter.

(1) Water supply. An adequate supply of water shall be available at all times in each food service facility, with a minimum of 24 Gallons/Person/Day (GPD) provided. <sup>Pf</sup> [23]

(2) Water pressure. The system shall be designed to maintain a minimum pressure of 35 pounds per square inch (psi) and shall be designed to provide the maximum daily demand for the various types of facilities listed in 30 TAC §290.45(d)(1)(A). When the system is intended to provide firefighting capability, it shall also be designed to maintain a minimum pressure of 20 psi under combined fire and drinking water flow conditions. Minimum distribution pressure shall not be less than 20 psi at any time. <sup>Pf</sup> [23]

§228.272. Water Quality.

(a) Bacteriological properties. Each food establishment that uses a private water system shall have its water sampled and tested for total coliform, fecal coliform, *E. coli*, or other fecal indicator organisms as specified in this subsection. <sup>P</sup> [19]

(1) A food establishment shall have its water sampled and tested and must obtain negative test results one month before commencing operation. <sup>P</sup> [19]

(2) A food establishment shall have its water sampled and tested every six months and must obtain negative test results. <sup>P</sup> [19]

(3) If a test result is positive, the food establishment shall remediate the water system and have its water sampled and tested every month until test results are negative for 12

**§228.272 (a)(3)**

**§228.272 (b)(5)**

consecutive months. After achieving negative test results for 12 consecutive months, the facility shall resume water testing every six months as specified in paragraph (2) of this subsection. <sup>P</sup> [19]

(4) Testing for microbial contaminants shall be performed at an accredited laboratory certified in accordance with 30 TAC Chapter 25 Environmental Testing Laboratory Accreditation And Certification. [47]

(5) If a routine distribution coliform sample is positive for *E. coli*, then the facility shall post a written boil water notification. The notification shall state, "To ensure destruction of all harmful bacteria and other microbes, water for drinking, cooking, and ice making must be boiled and cooled before consumption or use in preparing food or cleaning food contact surfaces and equipment. The water shall be brought to a vigorous rolling boil and then boiled for least two minutes. Instead of boiling water, the food establishment may use purchased bottled water, water obtained from some other suitable source, or ice obtained from an approved source." <sup>P</sup> [19]

(6) The boil water notification shall remain in effect until a repeat distribution coliform sample is coliform-negative. <sup>P</sup> [19]

(7) Records of all bacteriological tests and of any boil water notification shall be kept on site. [47]

(b) Chemical properties.

(1) Food service facilities shall submit a water sample obtained from the entry point to the distribution system to a laboratory for chemical analysis at least once every three years. <sup>P</sup> [19]

(2) The chemical analysis shall be for primary and secondary constituent levels. <sup>P</sup> [19]

(3) Maximum primary constituent levels are as described in the following table. <sup>P</sup> [19]

Figure: 25 TAC §228.272(b)(3)

(4) Maximum secondary constituent levels are as described in the following table. <sup>P</sup> [19]

Figure: 25 TAC §228.272(b)(4)

(5) Records of all chemical testing shall be kept on site. <sup>P</sup> [19]



**§228.272 (c)(1)**

**§228.272 (c)(1)**

(c) Minimum residual disinfectant concentrations and maximum residual disinfectant levels (MRDLs).<sup>P</sup> [19]

(1) The minimum residual disinfectant concentration in the water entering the distribution system and the water within the distribution system shall be 0.2 milligrams per liter (mg/L) free chlorine.<sup>P</sup> [19]

(2) The MRDL of free chlorine in the water within the distribution system shall be 4.0 mg/L based on a running annual average.<sup>P</sup> [19]

Figure: 25 TAC §228.272(b)(3)

<b>CONSTITUENT</b>	<b>LEVEL (mg/l except where otherwise stated)</b>
Antimony	0.006
Arsenic	0.010
Asbestos	7 million fibers/liter (longer than 10 µm)
Barium	2
Beryllium	0.004
Cadmium	0.005
Chromium	0.1
Cyanide	0.2 (as free Cyanide)
Fluoride	4.0
Mercury	0.002
Nitrate	10 (as Nitrogen)
Nitrite	1 (as Nitrogen)
Nitrate and Nitrite (Total)	10 (as Nitrogen)
Selenium	0.05
Thallium	0.002

**§228.273**

**§228.274 (b)**

Figure: 25 TAC §228.272(b)(4)

<b>CONSTITUENT</b>	<b>LEVEL (mg/l except where otherwise stated)</b>
Aluminum	0.05 to 0.2
Chloride	300
Color	15 color units
Copper	1.0
Corrosivity	Non-corrosive
Fluoride	2.0
Foaming agents	0.5
Hydrogen sulfide	0.05
Iron	0.3
Manganese	0.05
Odor	3 Threshold Odor Number
pH	>7.0
Silver	0.1
Sulfate	300
Total Dissolved Solids	1,000
Zinc	5.0

§228.273. Backflow Prevention. The plumbing system shall preclude backflow of a solid, liquid, or gas contaminant into the water supply system at each point of use, including on a hose bib, by:

(a) providing an air gap between the water supply inlet and the flood level rim of a plumbing fixture, equipment, or nonfood equipment that is at least twice the diameter of the water supply inlet and not less than 25 mm (1 inch); <sup>P</sup> [19] or

(b) installing an approved backflow prevention device that meets the American Society of Sanitary Engineering (ASSE) standards for construction, installation, maintenance, inspection, and testing for that specific application and type of device. <sup>P</sup> [19]

§228.274. Disinfection of New or Repaired Water System Facilities.

(a) When repairs are made to existing mains or when new main extensions are installed, they shall be disinfected using such amounts of chlorine compounds as to fill the repaired or new mains and appurtenances with water containing 50 mg/L chlorine. <sup>P</sup> [19]

(b) After the water containing this amount of chlorine, which is greater than that normally present in drinking water, has been in contact with the pipe and appurtenances for at least 24

**§228.274 (b)**

**§228.278**

hours, the main shall be flushed until the free chlorine or chloramine in the water within the new or repaired distribution system is less than 4.0 mg/L. <sup>P</sup> [19]

(c) A sample of water from the new or repaired main shall be submitted to a TCEQ Accredited laboratory for bacteriological examination so as to be assured that the disinfection procedure was effective. <sup>P</sup> [19]

(d) A supply of sodium hypochlorite or calcium hypochlorite disinfectant shall be kept on hand for use when making repairs and repairing line breaks. [47]

§228.275. Flushing of Water System Mains. All dead-end mains should be flushed at monthly intervals or more frequently to maintain water quality. <sup>P</sup> [19]

§228.276. Collection System Location.

(a) No sanitary sewers or septic tanks shall be allowed within a distance of 150 feet of any well used for drinking water. No cesspool or septic tank open-jointed drain field shall be allowed within a distance of 150 feet of any well used for drinking water. <sup>P</sup> [20]

(b) Storm sewers located within specified distances for sanitary sewers shall be constructed so as to prevent leakage from them. <sup>P</sup> [20]

(c) Water lines and sanitary sewers shall be installed no closer to each other than nine feet. <sup>P</sup> [20]

§228.277. Well Logs.

Copies of well material setting data, geological log, sealing information (pressure cementing and surface protection), disinfection information, bacteriological sample results, and a chemical analysis report of a representative sample of water from the well shall be kept on file. A State of Texas Well Report must be filed with the Texas Department of Licensing and Regulation (TDLR) in accordance with Texas Occupational Code, Title 12. Practices and Trades Related to Water, Health, and Safety, Chapter 1901.251. [47]

§228.278. Interconnection.

No physical connection between the distribution system of a food service facility water supply and that of any other water supply shall be permitted. Unless that water supply meets all applicable requirements of 30 TAC 290. <sup>P</sup> [19]

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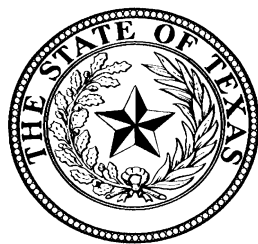
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