## Rules of
Department of Health and Senior Services
Division 20—Division of Community and Public Health
Chapter 1—Food Protection

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Title 19—DEPARTMENT OF HEALTH AND SENIOR SERVICES
Division 20—Division of Community and Public Health
Chapter 1—Food Protection

19 CSR 20-1.010 Sanitation of Food Service Establishments
(Rescinded October 30, 1999)


19 CSR 20-1.020 Sanitation of Retail Food Stores
(Rescinded October 30, 1999)


19 CSR 20-1.025 Missouri Food Code

PURPOSE: This rule establishes up-to-date sanitation standards for food establishments designated in Chapter 196, RSMo.

PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Applicability. This rule applies to food establishments, food processing plants, and brokers manufacturing and/or distributing frozen dessert products.

(2) Definitions. The following definitions shall apply in the interpretation and application of this rule and shall have the meaning stated below:

(A) “Administrative authority” shall mean the department, local public health agency (LPHA), and/or U.S. Food and Drug Administration that has authority to govern food establishments and/or food processing plants;

(B) “Broker” shall mean any person operating a food processing plant located outside of Missouri that manufacturers and/or distributes frozen dessert products into Missouri;

(C) “Department” shall mean the Missouri Department of Health and Senior Services;

(D) “Food establishment” shall be defined as specified in 19 CSR 20-1.025;

(E) “Food processing plant” shall be defined as specified in 19 CSR 20-1.025;

(F) “Frozen dessert” shall mean ice cream, ice cream mix, ice milk, sherbet, frozen malt, ice milk mix, mellorine, edible fat frozen dessert, or ices that meet the definition of a potentially hazardous food as defined in 19 CSR 20-1.025; and

(G) “Person” shall mean an individual, partnership, corporation, organization, and association.

(3) Responsibilities. The person shall—

(A) Allow the administrative authority access to the premises during normal hours of operation for the purposes of conducting health and sanitation inspections;

(B) Allow the administrative authority to collect water, food, and environmental samples as needed;

(C) Be in compliance with sanitation and production standards for frozen desserts as they relate to public health;

(D) Have the ability to provide the department with a copy of any food safety or sanitation and production standards for frozen desserts as they relate to public health.

(4) General Criteria.

(A) Food establishments shall—

1. Be in compliance with sanitation requirements specified in 19 CSR 20-1.025 or local food ordinance; and

2. Clean and maintain frozen dessert equipment in accordance with manufacturer’s specifications.

(B) Food processing plants shall—

1. Be in compliance with sanitation requirements specified in 19 CSR 20-1.040; and

2. Be in compliance with labeling requirements specified in 19 CSR 20-1.045.

(C) Brokers shall—

1. Be in compliance with equivalent local sanitation requirements; and/or

2. Be in compliance with sanitation requirements specified in 21 CFR Part 117; and


(5) Application Requirements for Initial Frozen Dessert License.

(A) Prior to the issuance of a license, an applicant shall complete and submit an application packet to the department. The department may require additional information...
when deemed necessary to assure compliance with the requirements of this rule. The application packet shall include:

1. A completed Application for Frozen Dessert License (10-21). The Application for Frozen Dessert License is incorporated by reference into and made part of this rule as published by the Missouri Department of Health and Senior Services, 930 Wildwood Drive, Jefferson City, MO 65109, website: https://health.mo.gov/safety/foodsafety/indusryfoods/manufacturedfoods/frozendessert.php and can be requested by e-mailing Info@health.mo.gov. This rule does not incorporate any subsequent amendments or additions.

2. A nonrefundable licensing fee as specified in section 196.866, RSMo;
3. Certificate of No Tax Due as required in section 144.083, RSMo; and
4. A copy of the most current sanitation inspection report from the administrative authority.

(B) Private homes, hospitals, churches, or fraternal organization manufacturing frozen dessert products for their own use or food establishments serving and/or selling ice cream or frozen dessert products received in its final frozen form from a licensed manufacturer shall not be required to obtain a frozen dessert license.

(6) Procedure for Issuance or Denial of Frozen Dessert License.

(A) The applicant shall be notified in writing or electronic mail (email), by the department, when the application is approved, incomplete, or denied.

1. If the application is approved, the notice shall specify the application is approved and a frozen dessert license shall be issued.

2. If the application is incomplete, the notice shall specify the necessary information or documentation required to complete the application.

A. The applicant shall submit the requested information and/or documentation to the department within thirty (30) calendar days from the issuance date of the notice.

B. Failure to submit the requested information within the thirty (30) calendar days may result in the department denying the application.

3. If the application is denied, the notice shall specify the reason(s) for the denial.

(B) The applicant shall be denied a frozen dessert license for any one (1) or any combination of the following:

1. Failure to submit a complete application;
2. False or misleading statement(s) on the application; or
3. Failure to comply with the applicable requirements specified in sections (3) and (4) of this rule.

(C) If the applicant is aggrieved by a determination to deny licensure, the applicant may appeal the department’s decision to the Administrative Hearing Commission as provided by section 621.045, RSMo.

(7) License Renewal.

(A) A frozen dessert license shall be valid for one (1) year.

(B) Prior to the issuance of a renewal license, within sixty (60) calendar days but no later than thirty (30) calendar days prior to the expiration of the current license, a licensee shall complete and submit an application packet to the department. The department may require additional information when deemed necessary to assure compliance with the requirements of this rule. The application packet shall include:

1. A completed Application for Frozen Dessert License (10-21). The Application for Frozen Dessert License is incorporated by reference into and made part of this rule as published by the Missouri Department of Health and Senior Services, 930 Wildwood Drive, Jefferson City, MO 65109, website: https://health.mo.gov/safety/foodsafety/indusryfoods/manufacturedfoods/frozendessert.php and can be requested by e-mailing Info@health.mo.gov. This rule does not incorporate any subsequent amendments or additions.

2. A nonrefundable licensing fee as specified in section 196.866, RSMo;
3. Certificate of No Tax Due as required in section 144.083, RSMo; and
4. A copy of the most current sanitation inspection report from the administrative authority.

(PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Applicability. The requirements of this rule apply to buildings or facilities, or parts thereof, used for, or in connection with, the manufacturing, packaging, processing, or holding of human food.


19 CSR 20-1.042 Acidified Foods

PURPOSE: This rule establishes standards to assure the facilities, methods, practices, and controls used to manufacture, process, and package acidified foods are safe and conducted under sanitary conditions.

PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this

19 CSR 20-1.040 Good Manufacturing Practices

PURPOSE: This rule establishes sanitation standards of public health significance for manufactured foods.

PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this
rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Applicability. The requirements of this rule apply to any person engaged in or connected with manufacturing, processing, and/or packaging of acidified foods.


19 CSR 20-1.045 Food Labeling

PURPOSE: This rule establishes food labeling standards for manufactured foods.

PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Applicability. The requirements of this rule apply to buildings or facilities or parts thereof, used for or in connection with the labeling of human food.


19 CSR 20-1.050 Sanitation Standards for the Manufacture of Soft Drinks and Beverages

PURPOSE: This rule defines and establishes sanitation standards for nonintoxicating beverage and soft drink manufacturers.

PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. Therefore, the material which is so incorporated is on file with the agency who filed this rule, and with the Office of the Secretary of State. Any interested person may view this material at either agency’s headquarters or the same will be made available at the Office of the Secretary of State at a cost not to exceed actual cost of copy reproduction. The entire text of the rule is printed here. This note refers only to the incorporated by reference material.

(1) The following definitions shall apply in the interpretation and the enforcement of this rule:

(A) Bottling means filling, capping, packaging and enclosing in bottles or other containers, including metal cans and premixed tanks;

(B) Flavor manufacturing plant means a building in which soft drink flavors are prepared, manufactured and packaged, including any separate room used for the accommodation of workers;

(C) Franchisee means a person authorized or given contractual permission to bottle, offer for sale or distribute a soft drink in a specified territory for a company or franchiser who owns the trademark or name and formula for the soft drink;

(D) Governing jurisdiction means standards, codes or ordinances as administered by local, state or federal agencies;

(E) Nonintoxicating beverage plant means a building in which soft drinks are produced including any separate room used in the preparation or storage of soft drink flavors and including any separate room used for the accommodation of production employees;

(F) Nonnutritive sweeteners means saccharin salt, aspartame and other such non-sugar sweetening ingredients as may be approved by the federal Food and Drug Administration (FDA) and recognized by of the Department of Health;

(G) Person means any individual, firm, corporation or other legal entity;

(H) Sodium means the amount of this element expressed in terms of milligrams (mg) per eight (8) fluid ounces.

  1. Sodium-free means less than five milligrams (5 mg) of sodium per eight (8) fluid ounces.

  2. Very low sodium means thirty-five milligrams (35 mg) or less of sodium per eight (8) fluid ounces.

  3. Low sodium means one hundred forty milligrams (140 mg) or less of sodium per eight (8) fluid ounces;

(I) Soft drink shall be held to mean and include all beverages of every kind manufactured or sold in the state which shall be understood to include those containing less than one-half (1/2) of one percent (1%) of or no alcohol, including carbonated beverages, still drinks, seltzer water, artificial or natural mineral waters and all other waters used and sold for beverage purposes. Among other products, this rule shall be interpreted to include carbonated beverages, soda, soda water, fruitade, any nonalcoholic flavored still beverages, artificial or natural mineral waters, bottled table waters, artificial waters whether carbonated or not, seltzer and club soda, and beverages that are manufactured or created by the use of parts of or natural fruit juices and the use of artificial flavoring and water such as orange juice, lemon drink, reconstituted orange juice or other similar names. These rules do not apply to whole or concentrated beverages such as concentrated grape juice, unfermented grape juice, orange juice, lemon juice, grapefruit juice, pineapple juice and apple juice or cider, provided that the same is the juice extracted from the natural fruit and that it is in its natural state and properly labeled. This rule does, however, cover all reconstituted products which are bottled from the concentrates referred to in this subsection;

(J) Soft drink flavors mean any type of soda water flavor or beverage base, syrup extracts, concentrate, powder or other compound prepared for use as a flavoring for soft drinks; and

(K) Sweetening ingredient means cane sugar or beet sugar, in liquid or crystal form,
dextrose, corn sugar syrup in liquid or direct form, honey or any syrup from any sugar or any combination of these sugars;

(2) Beverage Labeling. Beverages shall be labeled in compliance with sections 196.010, 196.015, 196.075, 196.120 and 196.415!RSMo (1986).

(A) Labels or advertising pertaining to sodium content shall have the serving size and sodium content declared on the label and shall be in conformance with section (1) of this rule.

(B) Supplemental printed information and graphics may appear on the label but shall not imply properties of the product or preparation methods which are not factual.

(C) In addition, the following shall also be required when labeling bottled water:
1. If a public water system is used as the source of water for the bottled water, the container shall be labeled to clearly inform the consumer of the source of the water. If the bottler further processes, conditions or treats the water from the public water system, the additional treatments may also be included on the label;

2. A bottled water with or without natural or added carbonation may be prepared with added flavors, extracts, essences or fruit juice concentrates derived from a spice or fruit and comprising less than one percent (1%) by weight of the final product. The final product shall contain no sweeteners or additives—including nonnutritive sweeteners—other than any of the following flavors, extracts, essences or fruit juice concentrates and carbon dioxide and shall be designated on labels and in advertising as follows:
   - A. The common or usual name of the characterizing flavor shall accompany the designation of the bottled water-product type;
   - B. The product may be designated as natural only if it meets the requirements of the designation as defined in subparagraph (2)(C)3.E. of this rule and naturally derived flavors, extracts, essences or fruit juice concentrates and carbon dioxide shall be labeled as naturally derived on labels and in advertising as follows:
      - A. The common or usual name of the characterizing flavor shall accompany the designation of the bottled water-product type;
      - B. The product may be designated as natural only if it meets the requirements of the designation as defined in subparagraph (2)(C)3.E. of this rule and naturally derived flavors, extracts, essences or fruit juice concentrates and carbon dioxide shall be labeled as naturally derived on labels and in advertising as follows:
      - C. Mineral water means water containing more than five hundred milligrams per liter (500 mg/l) of total dissolved solids and originating entirely from an underground source, which may be a well, artesian well or spring. Mineral water may be derived from a natural orifice or from a bore hole adjacent to the natural orifice. If it is derived from a bore hole adjacent to the natural orifice, the water shall be from the same underground stratum and be of the same quality and composition as the water derived from the natural orifice without external force. Mineral water may not be altered by the addition or deletion of minerals or by blending it with water from a nonmineral water source, except that mineral water may be filtered and shall be treated with a disinfection process approved by the Department of Health and shall be treated to reduce the concentration of any naturally occurring substance which exceeds the bottled water standards set forth in sections (6)–(8) of this rule.
      - D. Mineralized water means water which contains a naturally occurring substance which exceeds the bottled water standards set forth in sections (6)–(8) of this rule.
      - E. Natural water means spring, artesian well or well water which is unmodified by mineral addition or deletion, except natural water may be filtered and shall be treated with a disinfection process and treated to reduce the concentration of any substance which exceeds standards set forth in sections (6)–(8) of this rule.
      - F. Purified water means water produced by distillation, deionization, ion exchange treatment or reverse osmosis and that meets the definition of purified water in the United States Pharmacopoeia: Purified water is water obtained by distillation, exchange, reverse osmosis or other suitable exchange. It is prepared from water complying with the regulations of the United States Environmental Protection Agency (U.S. EPA) with respect to drinking water. It contains no added substance. Purified water which is vaporized and then condensed may be labeled distilled water.
      - G. Sparkling, carbonated or carbonation added means water which contains carbon dioxide. Naturally sparkling water means water with a carbon dioxide content from the same source as the water.
      - H. Spring water means water which issues by natural forces out of the earth at a particular place. Spring water, which may be derived from the natural orifice or from a bore hole adjacent to the natural orifice. If it is derived from the natural orifice by external force or from a bore hole adjacent to the natural orifice, the water shall be from the same underground stratum and be of the same quality and composition as the water derived from the natural orifice without external force. Spring water may not be altered by the addition or deletion of minerals or by blending it with water from a nonspring source.
water shall be treated with a disinfection process and may be filtered. Spring water may be collected and transported by pipes, tunnels, trucks or similar devices; and

I. Well water means water from a hole bored or drilled into the ground which taps the water of an aquifer. Well water shall be treated with a disinfection process and may be filtered. Well water may not be altered by the addition or deletion of minerals or by blending it with water from a nonwell water source.

(3) License Application and Expiration. Any person desiring to manufacture or distribute soft drinks or beverages as defined by the statute shall apply to the Department of Health for a license for each production facility and each warehouse operated by the applicant. The application shall be made on a form prescribed by the department for that purpose. Each license shall expire on the last day of June following the day of issuance. A license is not transferable and no refunds will be made. If the business is sold, the new owner shall obtain a new license.

(4) Sanitary Requirements. Every building, room, basement or cellar occupied or used for the preparation for sale, holding for sale, room, basement or cellar occupied or used by the owner shall obtain a new license. If the business is sold, the new owner shall apply for a new license. The newly acquired business shall be determined by the department to meet the same standards as the former business.

Department of Health will assist and recommend suggestions prior to the start of construction;

3. Floors. The floors of all rooms used for manufacturing operations shall be of a construction as to be impervious, easily cleaned, smooth and shall be kept sanitary and in good repair;

4. Walls and ceilings. Walls and ceilings in the syrup and bottling room shall be of hard, sound materials with smooth, easily cleaned surfaces and maintained clean. Surfaces that require painting shall be frequently painted with light colored paint;

5. Light. All processing areas shall have fixture lighting with adequate foot candle lighting. All other areas shall be adequately lighted;

6. Ventilation. All room areas utilized for manufacture, bottling and container cleaning shall be provided with the necessary air movement to prevent excessive condensation on the ceiling and on filling equipment, which could contaminate the beverage or its ingredients. When overhead drip due to condensation is exposing cleaned containers on conveyor lines to possible contamination, shields shall be provided over the conveyor lines;

7. Screening and vermin control. Screens or other suitable equipment must be provided and used for the purpose of excluding insects from the processing area. All necessary vermin and rodent control measures must be taken;

8. Syrup room. All nonintoxicating beverage plants shall be equipped with a room known as a syrup room in which syrup, flavors, extracts and other liquid beverage ingredients or concentrates are measured, mixed or prepared. This room shall be separately enclosed and substantially constructed of easily cleanable material. It shall be well-ventilated and lighted, shall be provided with adequate facilities for washing and sanitizing equipment and shall have hot and cold running water easily accessible to all parts. It shall be protected against rodents, vermin, insects and dust and so constructed as to be easily cleaned;

9. Water and sewer connections. Water supply (if private) must meet construction requirements as found in 19 CSR 20-3.010 of the rules of the Department of Health and be of a sanitary quality. Running water under pressure from an approved source shall be easily accessible to all parts of the plant and adequate provisions for quickly carrying off and disposing of waste water shall be provided. If more than one (1) source of water is available in a plant, no cross connections shall be permitted between the two (2) sources. Sewage and other wastes must be disposed of in a manner approved by the Department of Health;

10. Toilet and washrooms. Every nonintoxicating beverage plant shall be provided with toilet facilities complying with plumbing codes of the governing jurisdiction. Toilet rooms should not open directly into any room used as a processing area. The doors of all toilet rooms shall be self-closing. Toilet rooms shall be kept in a clean condition, in good repair and well-ventilated. A sign directing employees to wash their hands before returning to work shall be posted in all toilet rooms used by employees;

11. Lavatory facilities. Adequate and convenient handwashing facilities shall be provided, including hot and cold running water, soap and approved sanitary towels. The use of a common towel is prohibited. No employee shall resume work after using the toilet room without first washing his/her hands;

12. Clothing storage. Suitable places for changes of garments and proper care of same are required.

(B) The following rules regarding the machinery and equipment used within Missouri for the manufacture and distribution of soft drinks and beverages shall be observed:

1. Equipment. Every plant manufacturing soft drinks, soft drink flavors and beverages shall be equipped with easily cleaned, suitable mechanical-washing apparatus and with approved machines for carbonating, filling and closing so that they may be readily accessible for cleaning and sanitizing;

2. Conveyors, palletizers and cases. These items shall be maintained free from accumulating dust, dirt, mud and other foreign materials;

3. Syrup making equipment. All vats, covers, jars, mixing and storage tanks, pipe lines, filters and other apparatus employed in the preparation of syrups shall be of sanitary construction and lined when necessary with materials resistant to the action of syrup ingredients;

4. Water clarification equipment. Electrical or chemical coagulation devices and filters employed for clarification of water shall be of types acceptable to the Department of Health, shall not be operated beyond their rated capacity and shall be maintained in a clean, wholesome and sanitary condition at all times; and

5. Miscellaneous equipment. Every plant shall be adequately provided with thermometers and methods for ascertaining the strength of the washer solution employed in
bottle washing. All piping, vats, covers, tanks and other equipment or utensils shall be of easily cleanable construction and shall be kept in good repair. No containers shall be used for mixing or storing syrup or soft drink flavors unless they are of glass, stainless steel, good grade plastic, porcelain lined or block-tin lined; or made of or lined with, or both, some other suitable impervious, non-corrosive material. Utensils or equipment which are cadmium plated or zinc plated or in which cadmium, zinc or lead is a part of the metal are prohibited for the delivery of finished syrup or beverage. Only solder of a low lead content should be used for jointing.

(C) The following rules regarding the manufacturing methods and operations of soft drink and beverage plants which manufacture beverage products in Missouri shall be observed:

1. Cleaning facilities. Adequate facilities must be provided for the proper cleaning of all containers, utensils and equipment used in the manufacturing and processing of soft drinks;

2. Cleaning. All pipe lines, apparatus and containers employed in the manufacturing process shall be cleaned and washed after each day’s use. Sanitization shall be done as necessary to maintain at all times a sanitary system. Steam, hot water, chlorine or other equally efficient agents approved by the Department of Health are permissible for sanitization;

3. Sanitation of bottles. All closable containers in which soft drink flavors and beverages are sold or dispensed shall be washed or rinsed immediately before filling and shall be free of pathogenic bacteria. No containers intended by the manufacturer to be nonreturnable shall be refilled with beverages. Hand bottle washing, except as a preliminary before mechanical washing, shall be prohibited.

A. All reusable glass containers used in the manufacture or bottling of soft drinks and beverages, before being filled, shall be sanitized during the washing cycle in a hot caustic solution at a temperature of not less than one hundred eighty degrees Fahrenheit (180°F) that shall contain not less than three percent (3%) caustic or alkali expressed in terms of sodium hydrate for a washing cycle of not less than one (1) minute and then thoroughly rinsed in clean water until free of alkali, sodium hydrate or other residual materials acquired from the sanitizing procedure.

B. All premix and postmix containers, before being filled, shall be sanitized in a hot caustic solution at a temperature of not less than one hundred eighty degrees Fahrenheit (180°F) that shall contain not less than three percent (3%) caustic or alkali expressed in terms of sodium hydrate for a washing cycle of not less than one (1) minute and then thoroughly rinsed in clean water until free of alkali, sodium hydrate or other residual materials acquired from the sanitizing procedure.

C. Polycarbonate and other plastic containers designed and intended for reuse shall be sanitized with noncaustic cleaners in the following manner:

(I) Only noncaustic cleaners labeled for use for polycarbonate or plastic returnable containers shall be used. Specific washing conditions directed by the manufacturer shall be followed;

(II) Washing shall be performed for at least one (1) minute if using high-velocity jets or for three (3) minutes if using soaker-type wash;

(III) A sanitizing rinse shall follow the washing of the container. The sanitizing rinse shall use either water at an inside bottle temperature not less than one hundred seventy degrees Fahrenheit (170°F) for not less than fifteen (15) seconds; or use a sanitizing solution. The sanitizing solution shall contain not less than one hundred parts per million (100 ppm) nor more than two hundred parts per million (200 ppm) chlorine water solution at seventy-five degrees Fahrenheit (75°F) for not less than thirty (30) seconds. Other sanitizing agents may be allowed upon approval of the Department of Health;

(IV) A final rinse with product water or operations water shall be used to remove all traces of sanitizer; and

(V) Manufacturers currently using caustics for sanitizing plastic containers as of July 1, 1992, the effective date of this rule may continue to use this method of sanitizing bottles as described for glass containers in subparagraph (4)(C)3.A. New installations of bottle washing equipment shall use the noncaustic cleaner method as described in this section.

D. A record of key operating parameters of the container washer shall be maintained. The record shall include wash temperature, concentration of caustic or cleaner, concentration of sanitizer when using noncaustic cleaners, lack of carry-over of caustic or cleanser in containers, and maintenance on washers. Records shall be kept on file at least two (2) years for regulatory inspection.

4. Preparation of syrup. Syrups shall be prepared in a clean manner and every precaution shall be taken against contamination or absorption of deleterious substances during the process, preparation and subsequent storage. All vats, tanks and other equipment must be provided with suitable covers so as to protect the syrup and other ingredients used in the manufacturing of soft drinks from contamination. Covers shall be in place on all vats which contain ingredients;

5. Filling and closing. Manual filling crowning, closing or both shall be prohibited. Containers shall be filled and closed with automatic machinery and neither the operator nor his/her clothes shall come in contact with any portion of the bottle, can or machinery which might result in contamination of the product. This shall not apply to premix or postmix tanks for which mechanical closing equipment is not available. If and when mechanical closing apparatus becomes available, manual closing shall be prohibited after a period of five (5) years;

6. Storage of closures. Crowns, can covers or any other closures shall be stored in dustproof containers;

7. Storage of sweetening ingredient. Sweetening ingredients shall be stored in a clean sanitary manner and protected from insects, rodents, dust and other contamination;

8. Storage of finished goods. The finished product shall be stored in a manner as not to interfere with the sanitation of the processing area;

9. Refuse and rubbish. All waste, broken bottles and other such refuse shall be promptly and properly disposed of and all garbage and trash shall be kept in suitable clean, covered receptacles in a manner as not to become a nuisance;

10. Storage and handling of utensils and equipment. After bactericidal treatment, utensils shall be stored in a clean, dry place protected from insects, dust or other contamination and utensils shall be handled in a manner as to prevent contamination; and

11. Miscellaneous. The surroundings of all plants shall be kept clean and free from litter or rubbish. None of the operations shall be conducted in any room used for domestic purposes. Clothing and hands shall be kept clean. Soiled linens, aprons and coats shall be kept in covered containers for this purpose. Animals such as dogs, cats or birds, etc. are not permitted in the plant.

(D) The following rules regarding personnel employed in the manufacture and distribution of soft drinks and beverages must be observed:

1. Appearance and sanitary habits. All employees engaged in the mixing of syrups, filling of containers or in any other capacity which brings them in contact with the ingredients or containers of soft drinks, soft drink
flavors or beverages shall be clean, have a neat appearance and wear clean clothes as determined by the licensee. Spitting or the use of tobacco in any form in the syrup room or bottling rooms is prohibited; and

2. Health. It is the employer’s responsibility to assure him/herself that no employee has a contagious or infectious disease while engaged in handling, production, preparation, manufacture, packing, storage, sale or distribution of soft drinks, soft drink flavors or beverages.

(E) All bulk water sources and facilities shall be approved and maintained for sanitary quality at all times.

1. Bulk water shall be from approved sources.

A. All sources of water within the state intended for bulk water that is obtained from community public water supplies, non-community public water supplies or both shall comply with the laws and rules administered by the Public Drinking Water Program, Department of Natural Resources, governing public water supplies.

B. All sources of water within the state intended for bulk water that is obtained from springs or private wells shall be approved by the Department of Health. The Department of Health shall request a preliminary review by the Division of Geology and Land Survey, Department of Natural Resources of the geology and potential sources of contamination of springs and their recharge areas, such as sinkholes or chemical pipelines. The review, at the option of the Division of Geology and Land Survey, may include site evaluation, dye tracing, flow movement or other criteria to assist in determining characteristics of the spring. The spring orifice shall be protected from avoidable contamination, such as keeping livestock out. Because each spring and surrounding area may be unique, plans for protection from avoidable contamination shall be presented for review and approval by the Department of Health.

C. All privately owned wells within the state intended for bulk water shall be in compliance with the laws and rules administered by the Division of Geology and Land Survey, Department of Natural Resources, governing wells.

D. Sources of water which may be classified as surface or ground water under the influence of surface water shall be provided with filtration or disinfection methods capable of controlling pathogenic organisms or both.

E. All sources of water outside the state intended for bulk water, after treatment if needed, shall be in compliance with the appropriate regulatory authority for that jurisdiction and shall meet the requirements for microbiological, chemical and radiological standards set forth in sections (6)–(8) of this rule. Documentation of compliance with the appropriate regulatory authority shall be provided to the Department of Health.

2. Bulk water sources shall meet requirements for microbiological, chemical and radiological standards set forth in sections (6)–(8) of this rule.

3. All water storage facilities shall be maintained clean and sanitary at all times and shall meet the requirements set forth in section (4) of this rule.

4. Tank trucks, loading and unloading facilities, and other equipment used to transport bulk water shall be constructed of materials that do not import toxic substances, taste, odor or color to the water, and shall be maintained clean and sanitary at all times. Tanks previously used to transport toxic materials, petroleum products or other deleterious substance shall not be used to haul drinking water.

5. Bulk transport and transfer procedures, at a minimum, shall meet the following requirements:

A. The tank shall be sanitized monthly and at any time contamination is suspected or any substance other than water has been introduced or transported in the tank. The tank interior shall be cleaned, flushed with potable water, sanitized with a chemical sanitizing equivalent in bactericidal action of either a two (2)-minute exposure of fifty parts per million (50 ppm) of available chlorine at fifty-seven degrees Fahrenheit (57°F) when used as a circulating solution or an exposure of one hundred parts per million (100 ppm) available chlorine at fifty-seven degrees Fahrenheit (57°F) when used as a spray or fog. The tank cover shall not be opened after sanitizing;

B. Tanks also used for the transport of dairy products must have the interior of the tank inspected with an ultraviolet lamp by the hauler each time water is to be transported. Tanks shall be rejected for use when odors or contaminants are found. The dome cover shall be closed immediately after inspection;

C. All hoses, connections and fittings shall be sanitized with a chemical solution equivalent in bactericidal action of a one (1) minute exposure of fifty parts per million (50 ppm) chlorine water solution by brushing solution on all exposed parts;

D. A minimum chlorine residual of one-half parts per million (0.5 ppm) shall be maintained in the water being hauled;

E. Tank trucks or tank trailers may be filled through the fitting on the inner-dome cover when the tailpipe cannot be used;

F. Water quality in the tank, after twenty to thirty (20–30) gallons have been delivered into the tank, shall be checked as follows:

(I) Stop filling;

(II) Have discharge valve opened;

(III) Inspect water as it discharges. If water has unpleasant odor or looks dirty, it shall be rejected for use; and

(IV) When these checks indicate satisfactory water quality, proceed to fill the tank; and

G. The dome cover and tank discharge valve cover shall be closed and sealed after filling to volume desired;

H. When a fill connection is used, it shall be constructed in a manner to prevent contamination and shall be capped at all times when not in use; and

I. Records, at a minimum, shall meet the following requirements:

(I) Records shall be maintained and include the number of gallons delivered daily and cleansing and sanitizing methods used for tank truck and tank trailer interiors, riser, connections and hoses;

(II) Records shall include date, time and location of delivery, concentration of chlorine residual and time of contact when applicable; and

(III) The records shall be maintained for two (2) years and be available upon written or oral request by the Department of Health.

(5) Approval of License. When the analysis of samples shows the beverages to be unadulterated and free from ingredients injurious to health and sanitation conditions are satisfied as described in subsections (5)(A) and (B) of this rule, the manufacturer, upon payment of license fee, will be issued a license authorizing the applicant to manufacture a nontoxicating beverage or a soft drink. A license will be renewed annually upon the same terms and conditions as required for the original license. Licenses are not transferable and no refunds shall be made. If the business is sold, the new owner shall obtain a new license to operate.

(A) The buildings and equipment to be used by beverage manufacturers located in Missouri are found by the Department of Health to be in a sanitary condition as described in section (4) of this rule.

(B) Out-of-state manufacturers shall provide a copy of a current license or permit from the regulatory authority of the state or country of origin to manufacture the beverage; a copy of a current inspection report indicating the manufacturer is approved for a
license or permit by the regulatory authority of the state or country of origin and that application for a license or permit has been made and issuance of a license or permit is pending; or other documentation acceptable by the Department of Health may be provided when a license or permit is not yet available. If a license or permit is not required by the regulatory authority of the state or country of origin, the manufacturer shall provide the Department of Health a copy of a current inspection report indicating the manufacturer is in compliance with the standards of the regulatory authority. If no regulatory authority exists for the inspection of the manufacturer, the manufacturer shall provide either a copy of the most current inspection report from an independent third party acceptable to the Department of Health which indicates the manufacturer complies with the standards of the state or country of origin or a signed affidavit that the beverages were manufactured under sanitary conditions, are unadulterated and do not contain ingredients injurious to health.

(6) Bacteria, Yeast and Mold Standards. All product-contact surfaces of nonreturnable containers shall be exposed to an adequate clean water rinse. Each size and flavor of beverage shall be sampled at least annually. The following bacteria, yeast and mold standards shall be used to determine the sanitary status of all containers and their contents:

(A) No carbonated beverages, including carbonated natural and mineral waters, shall be sold, offered for sale or held in possession for sale in the state which contains a total bacterial count above one hundred (100) bacteria per milliliter as determined by the pour plate method using plate count agar, incubated at thirty-two degrees Centigrade (32° C) for seventy-two (72) hours or a most probable number of coliforms which exceeds a count of two (2) per one hundred (100) milliliters as determined by the multiple-tube fermentation test method or which indicates the presence of coliforms as determined by the membrane filter method; or the yeast or mold count or a combination of yeast or mold count which exceeds ten (10) per milliliter;

(B) Samples for any parameter not specified in sections (6)–(8) of this rule shall be sent to an approved laboratory, as described in paragraph (9)(C) of this rule.

(C) No still, flat or uncarbonated bottled water shall be sold, offered for sale or held in possession for sale in the state: which contains a total bacterial count above twenty thousand (20,000) bacteria per milliliter as determined by the pour plate method using R2A agar, incubated at twenty-eight degrees Centigrade (28° C) for five (5) days or which contains a most probable number of coliforms which exceeds a count of two (2) per one hundred (100) milliliters as determined by the multiple-tube fermentation test method or which indicates the presence of coliforms as determined by the membrane filter method, presence-absence coliform method, minimal medium ONPG-MUG (MMA-U) method or any other analytical method approved by the U.S. EPA for the determination of coliform in drinking water; or which indicates the presence of Pseudomonas aeruginosa; or which contains a yeast or mold count or a combination of yeast or mold count which exceeds ten (10) per milliliter and:

(D) Total bacteria counts by the rinse method shall not exceed two hundred fifty (250) bacteria per bottle for sanitized empty bottles. Sanitized equipment or premix containers should not exceed an estimated count of one hundred (100) bacteria per swabbed area of eight (8) square inches.

(7) Chemical Quality Standards for Source Water for Bottled Water. Source water for bottled water shall meet standards of chemical quality as established by the United States FDA in 21 CFR 103.35 (1991) Standards of Quality for Bottled Water, except—

(A) Samples for all chemical parameters shall be analyzed at least every three (3) years;

(B) The total dissolved solids limitation and other standards for which the U.S. EPA has not established a primary drinking water standard shall not apply to mineral water; and

(C) The level of lead shall not exceed fifteen thousandths milligrams per liter (0.015 mg/l).

(8) Radiological Quality Standards for Source Water for Bottled Water. Source water for bottled water shall meet the standards of radiological quality as established by the United States FDA in 21 CFR 103.35 (1991) Standards of Quality for Bottled Water. Samples shall be analyzed at least every four (4) years. Instate sources of water may be exempted from these standards if they are located in areas unlikely to yield water excessive of the United States FDA standards. Sources will be exempted on an individual basis by the Department of Health after consultation with the Department of Natural Resources.

(9) Routine Sampling of Beverages Including Bottled Waters. Manufacturers or their distributors shall send samples for microbiological quality standards either to the Department of Health laboratory or to an approved laboratory, as described in paragraph (9)(C) thereof, with results of required analyses recorded and routinely forwarded to the Department of Health. Samples of source water or finished water for bottled water for chemical and radiological quality standards shall be sent to an approved laboratory, as described in paragraph (9)(C) thereof, with results of required analyses recorded and routinely forwarded to the Department of Health.

(A) Beverages shall be sampled at the minimum frequency and analyzed for the parameters described in sections (6)–(8) of this rule.

(B) Samples for any parameter not specified in sections (6)–(8) of this rule shall be collected and analyzed as may be required by the Department of Health.

(C) Sampling methods and analyses, at a minimum, shall meet the following requirements:

1. Source water samples for bulk water, bottled water or both shall be taken from each approved source;

2. Product samples shall be taken from a batch or segment of a continuous production run for each type of beverage produced in a day’s production. The representative sample shall consist of a primary container of the beverage;

3. All beverage manufacturers and source water suppliers for bulk water, water bottled or both within Missouri shall submit microbiological samples either to the Department of Health laboratory or to a laboratory meeting one (1) of the following criteria; and all chemical and radiological samples shall be sent to a laboratory meeting one (1) of the following criteria:

   A. A laboratory certified by the Department of Health for analyses required for beverages, bulk water or source water;

   B. A laboratory operated or approved by the governmental regulatory agency having authority for beverage regulation or drinking water regulation or both in that state, province or country, provided their laboratory tests and procedures are acceptable to the
Department of Health; or

C. A laboratory operated by or approved by the United States FDA, the U.S. EPA or other appropriate federal agency, provided the laboratory tests and procedures are acceptable to the Department of Health; and

4. If a laboratory other than a Department of Health laboratory is used, each manufacturer or distributor must submit proof of certification approval or acceptance by an appropriate governmental agency concerning the ability to perform the designated analyses.


19 CSR 20-1.060 Licensing of Beverage Manufacturers and Distributors and the Collection of Inspection Fees

(Rescinded October 30, 2005)


19 CSR 20-1.070 Monitoring Animals for Presence of Diseases and Toxic Substances


19 CSR 20-1.100 Seafood Hazard Analysis and Critical Control Points (HACCP)

PURPOSE: This rule establishes standards to determine whether the facilities, methods, practices, and controls used to process fish and fishery products are safe and that those products have been processed under sanitary conditions.

PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Applicability. The requirements of this rule apply to buildings or facilities, or parts thereof, used for or in connection with the processing of fish and fishery products.


19 CSR 20-1.200 Juice Hazard Analysis and Critical Control Points (HACCP)

PURPOSE: This rule establishes sanitation and Hazard Analysis and Critical Control Points (HACCP) standards for the processing of fruit and vegetable juices.

PUBLISHER’S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Applicability. The requirements of this rule apply to buildings or facilities, or parts thereof, used for or in connection with the processing of fruit and vegetable juices.

