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Frozen Food Regulations

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Frozen Food Regulations

Sec. 21a-61-1. Definitions

The following definitions shall apply in the interpretation of sections 21a-61-1 to 21a-61-8 inclusive:

(1) "Accessible" means easily exposed for cleaning and inspection with the use of simple tools, such as those normally used by maintenance personnel.

(2) "Air temperature" means the equilibrated temperature of the air environment in question.

(3) "Break-up room" means any area, or space within a warehouse, used for the purpose of organizing cased frozen food into lots for individual consignment on route delivery.

(4) "Carrier" means any person, firm or corporation, operating or offering to operate a vehicle for the purpose of transporting frozen food.

(5) "Display case" means any case, cabinet or other facility used for displaying frozen food for sale.

(6) "Food product zone" means those surfaces with which food is normally in contact and those surfaces with which food may come in contact during processing, conveying, holding, refrigeration and packing, and which may drain onto product contact surfaces or into the product.

(7) "Freezing cycle" means lowering of the internal product temperature of a food product to a temperature of 0°F. or lower.

(8) "Frozen food" means any article used for food or drink for man or other animals (a) which is processed; (b) which is packaged and preserved by freezing in accordance with good commercial practices, and (c) which is intended for sale in the frozen state.

(9) "Internal product temperature" means the equilibrated product temperature of frozen food.

(10) "Operator" means any person, firm or corporation, operating or maintaining a frozen food plant or warehouse for the purpose of commercially preparing or storing frozen food.

(11) "Readily (or easily) accessible" means easily exposed, without the use of tools, for cleaning and inspection.

(12) "Readily removable" means that a component part shall be capable of being separated from the principal part without the use of tools.

(13) "Ready to eat frozen food" means a frozen food product which has been factory processed to the point at which it is ready for use as a food, and may or may not require further heating before use.

(14) "Removable" means that a component part shall be capable of being separated from the principal part with the use of simple tools such as those normally used by maintenance personnel.

(15) "Retail outlet" means any building, room or parts thereof where the sale of frozen food to the public is conducted.

(16) "Route delivery" means the transportation of frozen food with frequent stops for partial unloading.

(17) "Sale" means any and every transaction including the dispensing, giving, delivering, serving, exposing or storing or any other possessing of frozen food wherein frozen food is subject to transfer to another person.

(18) "Storage room or facility" means any area or space, within a warehouse, used for the purpose of storing frozen food.

(19) “Transportation” means the physical movement, or the acceptance for physical movement, of frozen food by a carrier.

(20) “Vehicle” means any van, truck, trailer, automobile, wagon, ship, barge, freight car, airplane or other means for transporting frozen food.

(21) “Warehouse” means any structure, room or part thereof used for the purpose of storing commercially manufactured frozen food.

(Effective July 27, 1984)

Sec. 21a-61-2. Frozen food: General

(a) **General.** (1) All frozen food shall be held at an air temperature of 0°F. or lower except for defrost cycles, loading and unloading, or other temporary conditions beyond the immediate control of the person or company under whose care or supervision the frozen food is held; provided only those frozen foods destined for repackaging in smaller units may be defrosted for such purposes in accordance with good sanitary precautions. (2) The internal product temperature of frozen food shall be maintained at 0°F. or lower except when the product is subjected to the above-mentioned conditions, in which case the internal product temperature shall not exceed 10°F. and such product shall be returned to 0°F. as quickly as possible. (3) Internal product temperature for any case of frozen food shall be determined in accordance with the following procedure: Only when an accurate determination of internal product temperature fails without sacrifice of packaged frozen food shall representative packages or units be opened to allow for inserting the sensing element for temperature measurement to the approximate center of the packages in question. (4) Internal product temperature of consumer packages of frozen food shall be determined in accordance with the following procedure: (A) Open the top of the case and remove two corner packages; (B) with an ice pick or similar tool, punch a hole in the case from the inside. Do not use the stem of the thermometer; (C) this hole is positioned so that, when the thermometer stem is inserted from the outside, it fits snugly between packages; (D) insert the thermometer stem about three inches. Replace the two packages. Close the case and place a couple of other cases on top to assure good contact on the sensing portion of the thermometer stem; (E) after five minutes, read the temperature. (5) Thermometers or other temperature measuring devices shall have an accuracy of + or - 2°F.

(b) **Exception.** Sections 21a-61-1 to 21a-61-8, inclusive, shall not apply or be deemed to apply to articles subject to the Frozen Desserts Ordinance and Code, recommended by the U.S. Public Health Service—May, 1940.

Sec. 21a-61-3. Construction and layout of frozen food plants

(a) **Coverage.** (1) This section covers in general the location, construction and layout of frozen food preparation plants, including construction and design requirements to promote cleaning and sanitary maintenance. (2) The provisions of this section shall be applicable only to those establishments initiating operations subsequent to the first inspection based upon the requirements of these regulations, provided plants in existence on April 10, 1962, shall be subject to the provisions of these regulations when the plant facilities are remodeled or rebuilt subsequent to the adoption of these regulations, or when such plant or plant facility constitutes an immediate health hazard.

(b) **Location.** (1) Food processing plants shall be located in areas reasonably free from objectionable odors, smoke, flying ash and dust or other contamination. (2) Adequate, dust-proof accessways for all vehicular traffic, connecting loading and unloading areas of the plant to the public streets, shall be available. Employee

parking areas and access roads close by the food processing plant shall be hard surfaced with a binder of tar, cement or asphalt.

(c) **Separation.** Frozen food preparation plants shall be completely separated from areas used as living quarters by solid, impervious floors, walls and ceilings with no connecting openings.

(d) **Water supply.** (1) The plant shall have an ample volume of potable water available from an approved public or private source. If a nonpotable water supply is necessary, it shall not be used in a manner which will bring it into contact with the product or product zone of equipment. Such nonpotable water systems shall be kept entirely separate from the potable water supply, and the nonpotable water lines shall be positively identified by a distinctive color. (2) All equipment shall be so installed and used that back siphonage of liquids into the potable water lines is precluded. (3) Hot and cold water in ample supply shall be provided for all plant clean-up needs. Hoses used for clean-up shall be stored on racks or reels when not in use.

(e) **Plant waste disposal.** The disposal of liquid wastes shall be to the public sewerage system, if available and permitted by local ordinances, or to a properly designed and installed private facility. Private liquid waste treatment facilities shall be approved by the health authority having jurisdiction.

(f) **General plant layout.** (1) Product preparation and processing (including freezing) departments shall be of sufficient size to permit the installation of all necessary equipment with ample space for plant operations and with unobstructed truckways for conveyances of raw materials and processed products. The plant shall be so arranged that there is a proper flow of product, without undue congestion or backtracking, from the time raw materials are received until the frozen, packaged article is shipped from the plant. (2) Raw material storage rooms and areas where preparatory operations, such as washing and peeling of fruits and vegetables and the evisceration of poultry, are carried on shall be separate from rooms or areas wherein frozen food is formulated, processed and packaged. Doors connecting various rooms or openings to the outside shall be tight fitted, solid and kept in a closed position by self-closing devices. (3) Facilities for holding the product under refrigeration until processed shall be provided. (4) Facilities for quick freezing the processed product efficiently shall be provided and so located as to be convenient to the food processing and packaging departments. Ample freezer storage shall be provided convenient to the quick freezing facilities; provided, when the frozen product is immediately removed from the establishment, such freezer storage shall not be required. (5) A separate room for storing inedible materials, such as fruit and vegetable peels, feathers and bones, pending removal from the plant shall be provided in a location convenient to the various preparation and processing areas. This waste storage room shall be of sufficient size to permit the proper storage of filled and empty metal or other relatively nonabsorbent refuse containers and their lids. It shall be equipped with an efficient power exhaust ventilation system, hot and cold water outlets and adequate floor drainage. The discharge from the exhaust system shall be located well away from fresh air inlets into the plant. (6) Packaging and labeling materials shall be stored in a separately enclosed space convenient to the packaging department. Packaging and labeling materials shall not be stored in the product processing and packaging departments, except that small quantities of such supplies as are necessary for maintaining continuity of operations is permissible in the processing and packaging departments. (7) Facilities for inedible products and catch basins shall be suitably located so as to avoid objectionable conditions

affecting the preparation and handling of edible products. (8) A separate room or area and proper facilities for cleaning equipment such as trays, hand trucks and implements shall be provided in a location convenient to the processing department. A power exhaust system shall be provided to dispel steam and vapors from the room. (9) Dockage areas shall be of adequate size, constructed of impervious materials and so drained as to minimize the entrance into the plant of dust, dirt and other contaminants from the receiving and shipping operations. If live animals are received, a separate dock shall be provided for this purpose. (10) Well located, properly ventilated dressing rooms and toilet rooms of ample size shall be provided for employees. Dressing rooms shall be separated from adjoining toilet rooms by tight, full height walls or partitions. The toilet room shall not be entered directly from a work room, but through an intervening dressing room or a properly ventilated toilet room vestibule. The ventilation and lighting of toilet and dressing rooms; the ratio of toilets, of hand-washing facilities, and of urinals to the number of employees using such facilities, and the type of fixtures used and the manner of installing all plumbing in such rooms shall conform strictly to applicable state and/or local codes governing such matters. (11) Employees shall not eat in the food processing or packaging area.

(g) **Plant construction.** (1) Floors shall be constructed of durable material which is easily cleanable and skid resistant. Where floors are wet cleaned, they shall be sloped to drain. (2) Interior walls shall be of a smooth and washable surface applied to a suitable base. (3) Coves with radii sufficient to promote sanitation shall be installed at the juncture of floors and walls in all rooms. (4) Ceilings shall be of adequate height and of smooth, washable material. (5) Window ledges shall be sloped at least 45° to the interior to promote sanitation. (6) Frozen food plants and warehouses shall be so constructed as to be rodent resistant. (7) All exterior window and door openings shall be equipped with effective insect and rodent screens. Where doors in outside walls or food handling areas are used for loading or unloading, "fly chaser" fans and ducts or other effective means shall be provided at such doors to prevent the entrance of insects. (8) Dressed lumber shall be used for exposed interior woodwork. (9) All exposed wood surfaces shall be finished with nontoxic oil or plastic paint or treated with hot linseed oil or clear wood sealer. (10) Stairs in product handling departments shall be constructed with solid treads and closed risers and shall have side curbs of similar material, six inches high measured at the front edge of the tread. (11) Refrigerator doors and jambs shall be covered with rust-resisting metal securely affixed to the doors and jambs. Joints necessary for installation shall be welded, soldered or otherwise effectively sealed. The juncture of the metal covering on jambs and walls shall be sealed with a flexible type sealing compound. Doorways through which the product is transferred on overhead rails or hand trucks shall be sufficiently wide to permit free passage of the largest trucks or widest suspended product without contact with the jambs.

(h) **Plumbing and floor drainage.** (1) The minimum slope of the floor for drainage shall be one-eighth inch to one-quarter inch per foot toward a properly located drain. Floor drains shall be provided at the rate of one drain for each four hundred square feet of floor area. The type and size of floor drains and sanitary sewage lines used and the method of installing such facilities and other plumbing equipment shall conform strictly to state or local codes. (2) Hand-washing facilities shall be provided convenient to all locations where the product is prepared and processed. Each lavatory shall be supplied with hot and cold or warm running water; powdered or liquid soap in a suitable dispenser; an ample supply of single service towels and a suitable receptacle for used towels. Lavatories in work-rooms and

toilet rooms shall be pedal operated. (3) Where sterilizers are required, they shall be of a size that will permit complete immersion of tools and other implements. Such sterilizing receptacle shall be equipped with a water line, means for heating the water, an overflow outlet and means for emptying the receptacle.

(i) **Lighting; ventilation.** (1) Work-rooms and employee dressing rooms shall have means for furnishing adequate natural light (approximately twenty-five per cent of the floor area in windows and/or skylights) and ventilation or an efficient air conditioning or mechanical ventilation system and adequate artificial lighting shall be provided. (2) Fresh air intakes for mechanical ventilation systems shall be equipped with effective replaceable filters to prevent the entrance of air-borne contaminants. Fresh air intakes shall be located well away from power exhaust system discharges and other sources of air-borne contaminants. (3) The general light intensities in product preparation, processing and packaging areas shall be not less than twenty foot-candles measured thirty inches above the floor. Where detailed visual tasks are required to assure a safe, wholesome product, the intensity of light on the surface of the product or product container shall be not less than fifty foot-candles. At least ten foot-candles of light shall be provided in all dressing and toilet rooms and at least five foot-candles in all other areas of the plant.

(Effective July 27, 1984)

Sec. 21a-61-4. Design and construction of frozen food processing equipment

(a) **Coverage.** (1) This section applies only to equipment acquired after April 10, 1962; provided, when processing equipment constitutes an immediate health hazard, it shall be subject to the provisions of this section. In modifying machinery and equipment existing on said date, efforts shall be made to conform to these specifications. (2) This section applies to the design, materials, construction and installation of equipment used in the processing, holding and packaging of ready-to-eat frozen food and the processing and holding of gravies, batters and other food ingredients containing eggs, milk, broth and other food components capable of supporting rapid bacterial growth. (3) Articles and/or materials shall be subject to the Food Additives amendment to the Federal Food, Drug and Cosmetic Act and clearance for their use is necessary thereunder. Notwithstanding the provisions of this section, nothing herein contained is intended to prohibit the use of a food additive under and in accordance with the terms of an effective regulation pursuant to the Federal Food, Drug and Cosmetic Act.

(b) **General principles.** The design, materials, construction and installation of frozen food equipment shall be easily accessible for cleaning and sanitization.

(c) **Equipment classification.** (1) Equipment used for the processing, conveying, holding, refrigeration and packaging of gravies, batters, or other food ingredients containing eggs, milk or broth, alone or in combination with other food ingredients, which are capable of supporting rapid bacterial growth shall have a finish of corrosion-resistant material and shall be of smooth finish and readily accessible for cleaning. This includes, but is not limited to, the following: Pumps, valves, pipe lines and their fittings, heat exchangers, homogenizers, containers, hoppers and fillers. (2) Equipment used in the processing, holding and conveying of foods or food ingredients which are intended to be incorporated in ready-to-eat frozen food shall have a finish of corrosion-resistant material and shall be of smooth finish and readily accessible for cleaning. This includes, but is not limited to, reservoirs, holding tanks, kettles, mixers for liquids, mixers and blenders for powders, dough mixers, flour handling equipment, fryers, cutters, dicers, slicers, cutting boards, pumps, valves, tanks, lines and fittings for liquid sugar, oils and shortening.

(d) **Materials.** (1) All surfaces within the food product zone shall be smooth and free from pits, crevices and loose scale and shall be relatively nonabsorbent. Surfaces shall be nontoxic and unaffected by food products and cleaning compounds. (2) The finish of corrosion-resistant (stainless steel, nickel alloy, etc.) surfaces shall be of 125 grit, properly applied, or the equivalent. (3) The finish of cast iron, cast and forged steel and cast nickel alloy shall not exceed a reasonable surface standard of roughness. (4) The use of galvanized surfaces shall be minimal and, where used, shall be of the smoothness of high quality commercial hot dip. (5) Copper and its alloys shall not be used in equipment where edible oils, liquid shortening, chocolate liquor and other fatty food products come in contact with the metal. (6) Cadmium shall not be used in any manner or form on the food equipment. (7) Lead shall not be used within or adjacent to the food product zone with the exception of its inclusion in dairy solder in an amount not to exceed five per cent. (8) Plastics shall be abrasion resistant, heat resistant to the degree needed for the product and for the cleaning process, and shatterproof and shall not contain free phenol, formaldehyde or a constituent which may result in the migration of any of the substances to the food or otherwise affect the characteristics of the food with which it comes in contact. (9) All gasketing and packing materials shall be relatively nonporous, relatively nonabsorbent and installed in a manner that results in a true fit to prevent protruding into the product zone or creating recesses or ledges between the gasketed joints. (10) Coatings used in the food product zone as a lining to prevent corrosion of the base material of food equipment shall be nontoxic, unaffected by, and inert to, the food in contact with it or cleaning preparations used on it. Such coatings shall be relatively nonabsorbent, odorless and tasteless.

(e) **Design and construction: Food product zone.** (1) All parts of the product zone shall be readily accessible or be readily removable for cleaning and inspection. (2) All parts of the food product zone shall be free of recesses, dead ends, open seams and gaps, crevices, protruding ledges, inside threads, inside shoulders and bolts or rivets which form pocket and patterns. (3) All permanent joints of metal parts shall be butt welded. (4) All welding within the food product zone shall be continuous, smooth, even and flush with the adjacent surfaces. (5) All interior corners shall be provided with a minimum radius of one-quarter inch, except where a greater radius is required to facilitate drainage or cleaning. (6) The equipment shall be constructed and installed to provide sufficient pitch so as to be completely self-draining. (7) Equipment which introduces air into the food product or uses air to convey the food product shall be fitted with a filter capable for withholding particles fifty microns or larger in size. Such filters shall be readily removable for cartridge replacement or cleaning. (8) Bearings shall be located outside the food product zone or outboard and shall be of the sealed or self-lubricated type. Those intended for use with a dry granular or a dry pulverized product directly adjacent to the food product zone shall be of the sealed type, without grease fittings. The bearings shall be installed flush to eliminate any recessed areas around the shaft within the food product zone. (9) Shaft seal assemblies and packing glands shall be outboard and shall be readily removable. The shaft seal or packing shall be retractable within a space between the assembly and bearing to facilitate easy removal of the sealing assembly and materials for cleaning and inspection. (10) All permanent screening and straining devices shall be readily removable for cleaning and inspection. They shall be designed to prevent replacement in an improper position. (11) Permanent screening and straining surfaces intended for use with a liquid or a semi-liquid product shall be fabricated from perforated metal. (12)

Permanent screening and straining surfaces intended for use with a dry granular or a dry pulverized product shall be fabricated from perforated metal; provided wire screen of not less than thirty by thirty continuous mesh may be used. (13) All filtering surfaces shall be readily removable for cleaning and inspection. (14) Filter papers shall be of the single-service type. (15) Filter cloths and spun glass filters shall be launderable. (16) Hinges and latches shall be of the simple take-apart type. (17) Motors shall be of the totally enclosed finless type and shall be mounted on the equipment whenever possible. (18) Covers shall be provided on reservoirs, hoppers or other vessels, and they shall be readily removable and shall be fitted with drip protective devices or facilities to prevent foreign substances from falling into the product.

(f) **Design and construction: Non-food product zone.** (1) All safety or gear guards shall be removable for cleaning and inspection. (2) All external surfaces shall be free of open seams, gaps, crevices, unused holes and inaccessible recesses. (3) Horizontal ledges and frame members shall be kept to a minimum; external angles shall be rounded, and internal angles shall be avoided. (4) Where lubrication of equipment is required, provision shall be made to prevent leaking or dripping into the food product zone.

(g) **Installation of equipment.** (1) All equipment shall be installed on a foundation of durable, easily cleanable material. (2) Equipment shall be placed at least eighteen inches from walls and ceiling, or sealed watertight thereto. All portions of the equipment shall be installed sufficiently spaced above the floor on a minimum number of supporting members to provide access for inspection and cleaning, or be installed completely sealed (water-tight) to the floor. (3) Whenever equipment passes through walls or floors, it shall be sealed thereto or sufficient clearance shall be allowed to permit inspection, cleaning and maintenance. (4) Where necessary, drains and catch pans shall be provided and shall be of such dimensions as to collect all spill and drip and be readily accessible or readily removable for cleaning. (5) Where pipes pass through ceilings of processing areas, pipe sleeves shall be inserted in the floor above so that their upper periphery is at least two inches above the floor. (6) All electrical connections, such as switch boxes, control boxes, conduit and Bx cables, shall be installed a minimum of three-quarters inch away from the equipment and walls, or be completely sealed to the equipment or wall.

(Effective July 27, 1984)

Sec. 21a-61-5. Operating practices for the commercial manufacturer of frozen food

(a) **Handling and storage of materials.** (1) **Foods.** All food ingredients received at the plant shall be wholesome. Storage shall be in rooms completely separate from food preparation and processing operations. Storage conditions shall preclude contamination from rodents, insects and other sources. Temperature of storage shall be in accordance with the following practices: Ingredients requiring refrigeration shall be stored at an air temperature of 40°F. or lower; frozen ingredients shall be stored at an air temperature of 0° or lower. (2) **Packaging materials.** Storage shall be in rooms completely separate from food preparation and processing operations. Conditions of storage shall preclude contamination from rodents, insects and other sources. (3) **General housekeeping.** The plant and premises shall be maintained so as to present a neat and orderly appearance at all times.

(b) **Personnel hygiene.** (1) The services of an employee with any open sore or an exposed portion of the body or one afflicted with an infectious or contagious disease shall not be used; provided services of employees with finger cuts, or with

bandages, finger cots and similar type coverings may be utilized on the condition that such employee wears rubber gloves. Any employee with an upper respiratory infection shall be assigned duties outside of the areas of food preparation, processing and packaging. (2) Visitors to food preparation, processing and packaging areas shall comply with employee requirements and such visits by unauthorized persons shall be restricted.

(c) **Practices for employees handling unpackaged food.** (1) Employees shall wear head covering and shall keep clothing in a clean condition consistent with the duty being performed. (2) Before beginning work, after each absence from post of duty, and after contact with non-sanitized surfaces, each employee shall: Wash his hands with liquid or powdered soap and warm water dispensed from a foot or elbow operated device; rinse his hands in a chlorinated spray or other approved sanitizing agent; dry his hands with single-service towels. (3) Employees shall minimize hand contact with food products. (4) The use of a common dip bowl or tank is prohibited. (5) If rubber gloves are used, they shall be cleaned and sanitized in accordance with hand washing specifications in subdivision (2) of this section. (6) Using tobacco in any form, chewing gum or eating in rooms where food products are stored, handled or prepared shall not be permitted.

(d) **Plant and equipment: Sanitation.** (1) Plant and equipment shall be clean when put into service. (2) All floors, tables, splash boards, work surfaces, equipment and utensils shall be cleaned and sanitized with approved agents and methods at the close of each shift. Critical areas and all food contact surfaces shall be cleaned and sanitized at least once during each shift. (3) Equipment such as pipes, pumps, fillers and valves shall be dismantled for cleaning and sanitizing; provided approved and effective in-place cleaning and sanitizing methods will be acceptable. (4) A thorough rinse with potable water shall follow any sanitizing operation that has been completed with a chemical sanitizing agent.

(e) **Preparation and processing.** (1) Fans, blowers or air cooling systems shall not move air from raw material or preparation rooms into processing rooms. (2) Only adequately cleaned, prepared raw materials shall be introduced into areas where frozen precooked foods are cooked and subsequently handled in processing operations. (3) Preparatory operations feeding to the packing line shall be so timed as to permit expeditious handling of consecutive packages in production and under conditions to prevent contamination, loss of quality or spoilage. (4) When batter, egg wash or milk wash is an ingredient, it shall be maintained at a product temperature not to exceed 45°F. Cracked or flaked ice used to rehydrate batters shall meet bacterial standards for potable water. Batter remaining in machines and equipment at clean-up time shall be discarded. (5) Breeding materials that have come in contact with batter and have been removed by screening shall be discarded. (6) Food ingredients or mixtures that are capable of supporting rapid bacterial growth shall be maintained either at a product temperature above 160°F. or below 45°F. (7) Cooked food such as meat, poultry, sauces and gravies shall be: (A) Refrigerated or incorporated into the finished product within one hour following preparation; (B) refrigerated within thirty minutes following preparation at an air temperature of 50°F. or less if the product is to be held from one to eight hours after preparation; (C) refrigerated within thirty minutes following preparation such that the internal temperature of the food product will be 40°F., or lower, within two hours of refrigeration if the food product has been comminuted or sliced, or is a liquid, and if the food is to be held more than eight hours. Large solid food components such as those that must be cooled before slicing shall be refrigerated at an air temperature of 40°F. or lower.

(8) Trays, pans or other containers of ingredients destined for incorporation into the finished product shall be protected with a clean cover unless these ingredients are used within thirty minutes of preparation. The cover shall not be of porous material. (9) Permanently legible code marks shall be placed on each immediate container or package at the time of packing. Such code marks, as devised by management, shall include the date of packing and the establishment where packed. (10) The packaged product shall be placed in the freezer within thirty minutes of packaging. Placement of packages in cases before freezing is prohibited. (11) Refuse from the food operations shall be promptly placed in containers that are prominently marked "Refuse" and equipped with lids. The handling of refuse shall be done in such a manner as not to constitute a nuisance. All refuse shall be removed from the premises on a daily basis and in such a manner as not to contaminate food products being manufactured within the plant. Refuse containers shall be thoroughly cleaned immediately after each emptying.

(f) **In-plant freezing.** (1) During the freezing cycle products shall be cooled to 50°F. or lower within two hours and to 0°F. or lower within thirty-six hours. (2) Products shall be frozen by approved commercial methods. (3) When necessary, products shall be protected so that dehydration and discoloration will not occur during the freezing cycle. (4) The freezer shall be precooled to an air temperature of 0°F. before loading. However, during loading, the freezer may rise to temperatures above 0°F. for short periods of time. (5) If cold air is used as the freezing medium, the product shall be arranged by staggering the individual items or by employing dunnage, spacers or other suitable methods to permit satisfactory circulation of cold air around the products. The cold air shall be circulated by a positive method; natural air circulation is not satisfactory. (6) The freezer and associated equipment used for handling the product shall be maintained in a clean and sanitary condition at all times. (7) A suitable indicating or recording instrument shall be used to measure the temperature of the cooling medium (i.e., air, liquid, refrigerated plates or pipe coils). (8) Packaged items are to be frozen in a manner that will result in a minimum amount of bulging or distortion. (9) After the freezing cycle, the frozen product shall be transferred to a storage facility as quickly as possible.

(Effective July 27, 1984)

Sec. 21a-61-6. Transportation

(a) **Equipment.** (1) Vehicles of transportation shall be equipped: (A) With a combination of insulation and mechanical refrigeration system, or other refrigeration methods or facilities, capable of maintaining an air and product temperature of 0°F., or lower, while loaded with any frozen food; and (B) with a thermometer, or other appropriate means of temperature measurement indicating air temperature inside the vehicle. The dial or reading element of the thermometer shall be mounted on the outside of the vehicle. (2) Vehicles used for route delivery shall comply with all equipment provisions herein specified for vehicles of transportation and shall be equipped with curtains or flaps in the doorway area, or with port doors, to maintain refrigeration during stops.

(b) **Handling practices for over-the-road transportation.** (1) Vehicles shall be precooled to an air temperature of 20°F., or lower, before loading. (2) Frozen food shipments shall not be accepted for transportation when the internal product temperature exceeds 0°F. (3) Frozen food shall be loaded within a vehicle of transportation to provide for free circulation of refrigerated air at the front, rear,

top, bottom and both sides of the load, except for vehicles of envelope type construction wherein refrigerated air circulates within walls of such vehicles. (4) The mechanical refrigerating unit of vehicles shall be turned on and doors of vehicles shall be kept closed during any time interval when loading or unloading operations cease. (5) The average product temperature of any shipment of frozen food shall be determined during loading and unloading by adequate temperature readings.

(c) **Handling practices for route delivery.** In addition to all provisions specified in subsection (b) of this section, the following provisions shall be met: (1) Each lot for individual consignment shall be refrigerated by means of mechanical refrigeration, dry ice, or by any other means capable of maintaining an air and product temperature of 0°F., or lower; (2) insulated containers shall be precooled to a temperature of 20°F., or lower, before being loaded with frozen food; and (3) doors of vehicles shall be kept closed during any time interval that loading or unloading operations cease.

(d) **Sanitary provisions.** (1) All interior surfaces of vehicles and devices used for transporting frozen food shall be clean and free of objectionable odors before being loaded with frozen food. (2) Frozen food shall be securely packaged, or wrapped, in a sanitary manner before they are accepted for transportation.

(Effective July 27, 1984)

Sec. 21a-61-7. Warehousing

(a) **Equipment.** (1) Each warehouse shall be equipped with suitable mechanical refrigeration capacity to maintain, under extreme outside temperature and peak load conditions, an air temperature of 0°F., or lower. (2) Each storage room and part thereof shall be maintained at an air temperature of 0°F., or lower. (3) Each storage room shall be equipped with a thermometer or other temperature measuring device which is easily visible. (4) The sensing element of thermometers and other temperature measuring and recording devices shall be located not more than six feet or less than five feet from the floor and not in a direct blast of refrigerated air or near entrance doors. When indicating thermometers only are used, they shall be read and recorded at least once every twenty-four hours during each calendar day. (5) Recording thermometers equipped with charts shall have a chart perforator. Charts so used shall designate an operating range of at least 10° above and 10° below 0°F. in graduations of one degree. (6) The use of electric or hand wound clocks, as well as twenty-four-hour or seven-day charts, for recording thermometers shall be optional at the operator's discretion. (7) Each chart, or record of observed temperatures, shall be dated, showing the time interval covered thereby, and shall be kept on file for a period of at least one calendar year. (8) Each breakup room shall be maintained at a temperature not to exceed 20°F.

(b) **Handling practices.** (1) The operator of a warehouse shall not accept custody of a lot or shipment of frozen food if internal product temperature exceeds 0°F., except as provided in section 21a-61-2 and except where such exception is duly recorded. (2) Notwithstanding the prohibition of subdivision (1), custody of lots with an internal product temperature in excess of 10°F. may be accepted by the operator on request of the owner of such lot, provided such foods shall be detained from sale and the temperature of such product shall be promptly returned to and maintained at 0°F., or lower, for the purpose of maintaining residual quality pending chemical, bacteriological or organoleptic examination. (3) Before a lot of frozen food is placed in storage, it shall be marked, or stamped, with a code for effective identification. (4) Frozen food in storage shall be placed on pallets, racks or skids and shall be stored no closer than eighteen inches to the ceiling and shall be

otherwitored so as to permit free circulation of refrigerated air. (5) Frozen food shall be stored under good sanitary conditions that preclude injury and contamination from, or to, other food held within the warehouse. (6) During the defrosting of overhead coils in storage rooms, stacks of frozen food shall be effectively protected from contamination by condensation, drip or leakage. (7) Break-up rooms shall not be used for storage. (8) At the time of its removal from warehouse custody, the internal product temperature of frozen food shall not exceed 0°F.

(c) **Sanitary provisions.** (1) The floors, walls and ceiling of a warehouse shall be maintained in a good sanitary condition. (2) The premises of a warehouse shall be maintained in a good sanitary condition. (3) (A) Warehouses shall have waterflush toilets so located as to be convenient to employees. The toilet room or rooms shall be well lighted and ventilated and shall be maintained in a sanitary condition. The doors of all toilet rooms shall be full-length and self-closing. (B) Adequate hand-washing facilities, including hot and cold or warm running water, powdered or liquid soap in a suitable dispenser and single service towels, shall be provided adjacent to all toilet rooms. The use of a common towel is prohibited. Washrooms shall be well lighted and ventilated and shall be maintained in a sanitary condition. (C) Warehouses shall have a dressing room or rooms for the changing and hanging of wearing apparel. If individual lockers are provided, they shall be well vented and maintained in a clean, sanitary condition and shall be free from disagreeable odors. The dressing room or rooms shall be adequately lighted and ventilated and shall be maintained in a clean, sanitary condition.

(Effective July 27, 1984)

Sec. 21a-61-8. Retail

(a) **Equipment.** (1) Each storage facility shall be equipped with suitable mechanical refrigeration capacity to maintain, under extreme outside temperature and peak load conditions, an air temperature of 0°F., or lower. (2) When storage facilities of the cabinet type are used: (A) They shall be defrosted as frequently as necessary to maintain refrigeration efficiency specified; and (B) they shall be equipped with a thermometer indicating a representative air temperature. (3) When storage facilities of the walk-in freezer type are used: (A) Frozen food in storage shall be on pallets, racks or skids and shall be stored no closer than eighteen inches to the ceiling and otherwise stored so as to permit free circulation of refrigerated air. (B) They shall be equipped with a thermometer, the sensing element of which shall be located within the upper third of the distance between the floor and ceiling. Such sensing elements shall not be placed in a direct blast of air from cooling units, cooling coils and heat exchange devices, or near the entrance door; and (C) they shall be equipped with an automatic mechanism for defrosting refrigerated coils when forced air blower type of refrigeration is used. (D) All frozen food display cases shall be designed, constructed and equipped with mechanical refrigeration facilities capable of maintaining an air temperature of 0°F. or lower. (E) Frost on refrigerator coils and in air passages of display cases shall be removed as frequently as necessary to maintain refrigeration efficiency. (F) Each display case shall be equipped with a thermometer, the sensing element of which shall be located in an appropriate place within the path of refrigerated air being returned to the coils. (G) The product load line shall be designated by a distinctive line at the inside terminal ends of each display case, and such lines shall be at the highest point of discharge and return of refrigerated air. (H) Each display case shall be equipped with separators to provide false walls located a minimum of one-half inch from terminal ends to provide for free circulation of refrigerated air between such terminal ends and the displayed product. (I) All

display cases in a retail outlet shall be so placed as to be relatively free of air currents resulting from door drafts, electric fans and other factors that adversely deflect the current of refrigerated air within the display case, and of heat elements, such as lights, heating units and related devices that tend to raise the temperature of refrigerated air within the display case.

(b) **Handling practices.** (1) Frozen food shall not be accepted for delivery by a retail outlet when the internal product temperature exceeds 0°F., except as provided in section 21a-61-2 and except where such exception is duly recorded. (2) All frozen food received at a retail outlet shall be immediately placed in storage facilities. (3) Each retail outlet shall be equipped with storage facilities of sufficient cubic displacement to accommodate the storage of frozen food. (4) Frozen food shall not be placed above the product food lines within any display case. (5) All frozen food in a retail outlet shall be stored and displayed under good sanitary conditions. (6) Retail outlets shall employ the first-in first-out basis of inventory control.

(Effective July 27, 1984)