**MANUFACTURING MILK LAW OF 2001 (EXCERPT)**
**Act 267 of 2001**

ARTICLE 15

## 288.710 Manufacturing dry milk products; duties of plant owner or operator.

Sec. 150. A person who owns or operates a plant manufacturing, processing, or packaging instant nonfat dry milk, nonfat dry milk, dry whole milk, dry buttermilk, dry whey, or other dry milk products shall do all of the following:

(a) Ensure that each storage room for the dry storage of a product is all of the following:

(*i*) Adequate in size.

(*ii*) Maintained in good repair and kept clean, orderly, free from rodents, insects, and mold.

(*iii*) Adequately lighted and ventilated.

(*iv*) Free from structural defects and inaccessible areas which may harbor insects.

(b) Provide a separate room or area constructed in compliance with this section and comply with all of the following for filling bulk bins, drums, bags, or other bulk containers:

(*i*) Keep the number of control panels and switchboxes in the room or area to a minimum and mount each control panel a sufficient distance from walls mounted in a wall with tight fitting removable doors to facilitate cleaning.

(*ii*) Provide an exhaust system adequate to minimize the accumulation of product dust within the room or area.

(*iii*) If needed, provide and maintain a dust collector to keep roofs and outside areas free of dry product.

(*iv*) Keep only packaging materials that are used within a day's operation in the packaging area.

(*v*) Keep packaging materials on metal racks or tables at least 6 inches above the floor and prohibit the presence of unnecessary fixtures, equipment, or areas of inaccessible space which may collect dust and harbor insects in the packaging room.

(c) Provide either of the following:

(*i*) A separate room for the transfer of bulk dry milk products from bags, bins, or drums to hoppers and conveyors leading to fillers that meets the requirements for construction and facilities of a bulk packaging plant.

(*ii*) An area or facility for the transfer of dry milk products from portable bulk bins if gasketed surfaces or direct connections are present and substantially eliminate the escape of product into the area.

(d) If applicable, provide a separate room for the filling of small packages that meets the same requirements for construction and facilities of a bulk packaging plant.

(e) Ensure that each preheater is of stainless steel or other equally corrosion resistant material and is cleanable, accessible for inspection, and equipped with suitable automatic temperature controls.

(f) Ensure that each hotwell is enclosed or covered and equipped with indicating thermometers either within the hotwell or in the hot milk inlet line to the hotwell, and ensure that a hotwell used for holding high heat products has a recorder.

(g) Equip each open-type evaporator or vacuum pan with an automatic condenser water level control, barometric leg, or ensure that the evaporator or pan is constructed to prevent water from entering the product and meets sanitary standards.

(h) If surge tanks are used for hot milk and temperatures of product including foam being held in the surge tank during processing is not maintained at a minimum of 145°F (63°C), install 2 or more surge tanks with connections to permit flushing and cleaning during operation and flush and clean each tank at least once every 4 hours during operation to prevent the buildup of bacterial levels or toxins.

(i) Provide surge tank covers easily removable for cleaning and use a surge tank cover at all times a surge tank is in use.

(j) Provide high pressure lines approved by the department that may be cleaned in place and are of such construction that dead-ends, valves, and high pressure pumps can be dismantled for hand cleaning.

(k) Provide spray dryers of continuous discharge type that have all of the following:

(*i*) Product contact surfaces of stainless steel or other equally corrosion resistant material.

(*ii*) Joints and seams on the product contact surfaces that are welded and ground smooth.

(*iii*) A design that facilitates ease in cleaning and inspection.

(*iv*) Sight glasses or ports of sufficient size located at strategic positions.

(*v*) Air intake filters and air intake and exhaust recording thermometers.

(*vi*) A filter system consisting of filtering media or devices that will effectively, and in accordance with good manufacturing practices, prevent the entrance of foreign substances into the drying chamber.


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(*l*) Clean the filtering system and replace component parts of a dryer as often as necessary to maintain a clean and adequate air supply and take precautions to assure complete combustion in gas fired dryers.

(m) Ensure that air is drawn into the dryer from sources free from odors and smoke, dust, or dirt.

(n) Ensure that the drums of a roller dryer are smooth, readily cleanable, and free of pits and rust.

(o) Maintain dryer knives in a manner that prevents scoring of the dryer drums.

(p) Ensure that a dryer has each of the following:

(*i*) End boards that are readily cleanable, have an impervious surface, and a means of adjustment to prevent leakage and accumulation of milk solids.

(*ii*) A stack, hood, the drip pan inside of the hood, and related shields constructed of stainless steel and readily cleanable.

(*iii*) A lower edge of the hood constructed to prevent condensate from entering the product zone.

(*iv*) A hood located in compliance with department guidelines.

(*v*) A stack that remains closed when the dryer is not in operation and that removes all vapors when the dryer is in operation.

(*vi*) Augers of stainless steel or of material approved by the department and that are readily cleanable.

(*vii*) Auger troughs and related shields of stainless steel or of other equally acceptable materials approved by the department that are readily cleanable.

(q) Provide a filtering system approved by the department to prevent dust, dirt, and all air entering the dryer from entering the drying room.

(r) Clean the filtering system and replace component parts as often as necessary to maintain a clean and adequate air supply.

(s) Make all dryer adjustments and ensure that the dryer is operating normally before collecting food grade powder from the dryer.

(t) Ensure that collectors are made of stainless steel or equally noncorrosive material and constructed to facilitate cleaning and inspection.

(u) Ensure that filter sack collectors, if used, are in good condition and that the system is constructed to render all parts accessible for cleaning and inspection.

(v) Ensure that conveyors are of stainless steel or equally corrosion resistant material and constructed to facilitate thorough cleaning and inspection.

(w) Provide cooling equipment with sufficient capacity to cool the product to 110°F (43.3°C) or lower immediately after the product's removal from dryer and prior to packaging.

(x) If bulk bins are used, cool the product to at least 90°F (32.2°C) and no more than 110°F (43.3°C).

(y) Provide a suitable dry air supply with effective filtering when air cooling and conveying is used.

(z) Ensure that all special equipment, including instantizing systems, flakers, pulverizers, and hammer mills used to process dry milk products are of sanitary construction and that all parts are accessible for cleaning and inspection.

(aa) Ensure that all newly installed sifters used for dry milk and dry milk products meet standards established or approved by the department and that all other sifters are constructed of stainless steel or other equally noncorrosive material and are of sanitary construction and accessible for cleaning and inspection.

(bb) Ensure that the mesh sizes of sifter screens used for various dry milk products are those recommended in sanitary standards.

(cc) Ensure that bulk bins are constructed of stainless steel, aluminum, or other equally corrosion resistant materials, free from cracks and seams, and have an interior surface and all product contact surfaces that are smooth and easily cleanable.

(dd) If automatic sampling devices are used, ensure that they are constructed in a manner that prevents contamination of the product with all parts readily accessible for cleaning.

(ee) Ensure that the product contact surfaces of dump hoppers, screens, mixers, and conveyors used for transferring dry products from bulk containers to fillers for small packages or containers are of stainless steel or equally corrosion resistant material designed to prevent contamination and have all parts accessible for cleaning.

(ff) Ensure that a dump hopper is at a height above floor level to prevent foreign material or spilled product from entering the hopper.

(gg) Ensure that all filling and packaging equipment is of sanitary construction and all parts, including valves and filler heads, are accessible for cleaning.

(hh) Ensure that each plant handling dry milk products is equipped with a heavy duty industrial vacuum cleaner and establish a vacuuming schedule approved by the department.

(ii) Provide persons with clean clothing and shoe covers exclusively for the purpose of cleaning the interior of the dryer when it is necessary to enter the dryer to perform the cleaning operation.


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(jj) Pasteurize all milk, buttermilk, and whey used in the manufacture of dry milk products at the plant where dried, except that condensed whey and acidified buttermilk containing 40% or more solids may be transported to another plant for drying without repasteurization if it is transported in a milk tank truck dedicated to hauling pasteurized product.

(kk) Pasteurize milk, dairy product blends, or skim milk to be used in the manufacture of dry milk or dry milk blends prior to condensing using the temperature and time standards in section 137. Dry milk blends shall be pasteurized at temperature and time standards approved for equivalent solids and fat content dairy products.

**History:** 2001, Act 267, Eff. Feb. 8, 2002.

### 288.711 Condensed products; temperature; use of surge, balance, or storage tank.

Sec. 151. (1) A person may transport to a drying plant condensed skim made from pasteurized skim milk. Condensed skim shall be effectively repasteurized at the drying plant, before drying, at not less than 166°F (75°C) for 15 seconds or the equivalent period in bacterial destruction approved by the department.

(2) A person shall pasteurize all buttermilk or substance from which the cream is derived before condensing at a temperature of 161 °F (72°C) for 15 seconds or the equivalent period in bacterial destruction approved by the department.

(3) A person shall pasteurize all cheese whey or milk from which the cheese whey is derived before condensing at a temperature of 161 °F (72°C) for 15 seconds or the equivalent period in bacterial destruction approved by the department.

(4) A person shall use surge tanks or balance tanks between evaporators and a dryer only to hold the minimum amount of condensed product necessary for a uniform flow to the dryers and shall either ensure each tank holds the condensed product at temperatures specified in section 70 or completely empty and wash each tank after each 4 hours of operation or less. In either case, the person shall provide alternate tanks to permit continuous operation during washing of tanks.

(5) Production of a condensed product that exceeds the amount a dryer will take continuously from pans may be bypassed through a cooler into a storage tank at temperatures specified in section 70 and held at that temperature until a dryer is available.

(6) A person shall make product cut-off points at least every 24 hours and completely empty, wash, and sanitize a storage tank before reusing the tank.

**History:** 2001, Act 267, Eff. Feb. 8, 2002.

### 288.712 Dry products.

Sec. 152. (1) A person shall operate a dryer at not more than the manufacturer's recommended capacity for the highest quality dry product and may remodel or redesign a dryer after installation upon department approval. A person shall remove dry products from the drying chamber upon completion of each drying cycle.

(2) Before packaging and immediately following removal of a dry product from the drying chamber, a person shall cool the dry product to a temperature not exceeding 110°F (43.3°C).

(3) A person who packages a dry milk product shall ensure that each package or container used for the packaging of a dry milk product is of a clean, sound, commercially accepted material that will protect the packaged contents to the department's satisfaction. A dry milk product packager shall not package a dry milk product in a container previously used for nonfood items or food deleterious to the dairy product.

(4) A person who packages dry milk shall ensure all of the following:

(a) That empty containers are protected at all times from possible contamination.

(b) That a lined container is not lined more than 1 hour before the container is filled unless it is provided adequate protection from contamination.

(c) That precaution is taken during the filling operation to adequately minimize product dust and spillage.

(d) That, when necessary, a mechanical shaker is provided.

(e) That the tapping or pounding of containers does not occur.

(f) That a container is closed immediately after filling.

(g) That a container's exterior is vacuumed or brushed when necessary to render it practically free of product remnants before that container is removed from the filling site.

(h) That each dryer, conveyor, sifter, and storage bin is clean and maintained in a sanitary condition.

(i) That in addition to a commercial pest control service, if any, a person designated by the packager implements a regularly scheduled insect and rodent control program approved by the department.

**History:** 2001, Act 267, Eff. Feb. 8, 2002;—Am. 2008, Act 147, Eff. June 27, 2008.

### 288.713 Dry milk product repackaging operator; duties.


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Sec. 153. (1) A person conducting a dry milk product repackaging operation shall do all of the following:

(a) Ensure that repackaging occurs in a sanitary manner and take all precautions to prevent contamination and minimize dust.

(b) Ensure that all exterior surfaces of each individual container are practically free of product before the container is wrapped or packaged in shipping containers.

(c) Keep the floor of each packaging site free of dust accumulation, waste, cartons, liners, or other refuse.

(d) Vacuum conveyors, packaging, and carton making equipment throughout each packaging day to prevent the accumulation of dust.

(e) Prohibit bottles or glass material of any kind in the repackaging or hopper room.

(f) Ensure that the inlet openings of all hoppers and bins are of a size approved by the department, screened, and placed at least 6 inches above the floor level.

(g) Clean the packaging site and all packaging equipment as often as necessary to maintain a sanitary operation and thoroughly examine and clean points of equipment where residues of the dry product may accumulate.

(h) Thoroughly clean windows, doors, walls, light fixtures, and ledges of the packaging site as frequently as necessary to maintain department standards of cleanliness and sanitation.

(i) Identify and dispose of waste dry milk products at the fillers in a manner that ensures that the waste dry milk product is not used for human consumption.

(2) A person packaging a dry milk product shall do all of the following:

(a) Store or arrange the packaged dry milk product in aisles, rows, or sections and lots at least 18 inches from any wall and in an orderly manner that allows easy access for inspection or for cleaning of the site.

(b) Place all bags and small containers of product on pallets elevated approximately 6 inches from the floor.

(c) Keep the storage site clean and dry and all openings to the storage site protected against insects and rodents.

(d) Arrange all supplies on dunnage or pallets in an orderly manner for accessibility and cleaning of the storage site.

(e) Keep supplies enclosed in their original wrapping material until used.

(f) Keep supplies removed from their original containers in an enclosed metal cabinet, bin, or on shelving, and protected from powder and dust or other contamination.

(g) Vacuum the storage site as often as necessary to preserve cleanliness and order.

(h) Take all necessary precautions throughout the entire operation to prevent the adulteration of 1 product with another.

**History:** 2001, Act 267, Eff. Feb. 8, 2002.

### 288.714 Dryers, conveyors, sifters, and storage bins; cleaning.

Sec. 154. Dryers, conveyors, sifters, and storage bins shall be cleaned as often as is necessary to maintain such equipment in a clean and sanitary condition. The kind of cleaning procedure either wet or dry and the frequency of cleaning shall be based upon observation of actual operating results and conditions.

**History:** 2001, Act 267, Eff. Feb. 8, 2002.

### 288.715 Manufacturing, processing, and packaging butter; duties of plant owner or operator.

Sec. 155. A person who owns or operates a plant manufacturing, processing, and packaging butter and related products shall comply with all of the following:

(a) Contain coolers or freezers, or both, that are each of the following:

(*i*) Equipped with facilities for maintaining proper temperature and humidity conditions, consistent with good manufacturing practices for the applicable product, to protect the quality and condition of the products during storage or processing.

(*ii*) Kept clean, orderly, and free from insects, rodents, and mold.

(*iii*) Maintained in good repair.

(*iv*) Adequately lighted.

(*v*) Capable of maintaining proper circulation of air at all times.

(*vi*) Constructed to allow thorough cleaning of the floors, walls, and ceilings.

(b) Contain properly constructed and sanitary churn rooms equipped to keep air free from odors and vapors and extreme temperatures by means of adequate ventilation and exhaust systems or air conditioning and heating facilities.

(c) Provide an atmosphere with no more than 10 mold colonies per cubic foot of air that is free of dust or other airborne contamination and maintained at a reasonable room temperature.


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(d) If the plant has a continuous churn, ensure that all product contact surfaces of the churn are of noncorrosive material readily accessible for cleaning and inspection and all nonmetallic product contact surfaces comply with standards established or approved by the department.

(e) If the plant has a conventional churn, ensure that the churn has tight seals around each door and is constructed of aluminum, stainless steel, or an equally corrosion resistant material, free from cracks, in good repair, and all gasket material is fat resistant, nontoxic, and reasonably durable.

(f) Ensure that bulk butter trucks, boats, and packers are constructed of aluminum, stainless steel, or an equally corrosion resistant material, are free from cracks and seams, and have surfaces that are smooth and easily cleanable.

(g) Ensure that shavers, shredders, or melting machines used for the rapid melting of butter or frozen or plastic cream are constructed of stainless steel or an equally corrosion resistant material that is sanitary and readily cleanable.

(h) Ensure that all printing equipment is designed to readily allow cleaning of product contact surfaces and that all product contact surfaces except conveyors are constructed of aluminum, stainless steel, or equally corrosion resistant material that meets department standards.

(i) Ensure that conveyors are constructed of material that can be properly cleaned and maintained in a manner satisfactory to the department.

(j) Ensure that each brine tank used for the treating of parchment liners is constructed of noncorrosive material, has an adequate and safe means of heating the salt solution for the treatment of the liners, and has a satisfactory drainage outlet.

(k) Ensure that each bulk starter vat is both of the following:

(*i*) Constructed of stainless steel or an equally corrosion resistant material, in accordance with standards established or approved by the department.

(*ii*) In good repair, equipped with tight-fitting lids, and containing effective temperature controls.

**History:** 2001, Act 267, Eff. Feb. 8, 2002.

### 288.716 Sale of butter; requirements.

Sec. 156. A person shall not sell, offer for sale or expose for sale, or have in possession with intent to sell any butter that does not conform to this act and shall not sell to the consumer any butter that has not been churned from wholesome cream and properly labeled.

**History:** 2001, Act 267, Eff. Feb. 8, 2002.

### 288.717 Butter; grading standards.

Sec. 157. (1) Only a grader approved by the department shall grade butter.

(2) Standards for grading are those described in 7 C.F.R. 58.

(3) As used in this section, "grade" means the classification of butter by its examination for flavor, aroma, body and texture, color, salt, package, and such other factors as may be approved by the department.

**History:** 2001, Act 267, Eff. Feb. 8, 2002.

### 288.718 Butter; chlorinating facilities; contamination prevention; containers or packaging materials.

Sec. 158. (1) The department may require a plant to provide chlorinating facilities for butter wash water.

(2) A person who owns or operates a plant shall take all necessary precautions to prevent contamination of products.

(3) In the packaging of butter and related products, a plant shall use commercially acceptable containers or packaging material that will protect the quality of the contents in a manner acceptable to the department. All cups or tubs containing 2 pounds or less shall have tops or covers that extend over the lip of the container to protect the product from contamination during subsequent handling.

**History:** 2001, Act 267, Eff. Feb. 8, 2002.

### 288.719 Parchment liners, wrappers, and other packaging material; protection against contamination.

Sec. 159. A person who owns or operates a plant shall protect supplies of parchment liners, wrappers, and other packaging material against dust, mold, and other possible contamination and do each of the following:

(a) Prior to use, completely immerse parchment liners or bulk butter packages in a boiling salt solution within a stainless steel or other equally noncorrosive material for not less than 30 minutes.

(b) Ensure that the solution described in subdivision (a) consists of at least 15 pounds of salt for every 85 pounds of water and is strengthened or changed as frequently as necessary to keep the solution full strength


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and in good condition.

(c) Treat or handle liners such as polyethylene and each lined butter container in such a manner as to prevent contamination of the liner prior to filling.

(d) Print and package consumer size containers of butter under sanitary conditions.

(e) Legibly mark commercial bulk shipping containers with the name of the product, net weight, name and address of manufacturer, processor or distributor, or an assigned plant identification number or any other identification that the department may require.

(f) Mark packages of plastic or frozen cream with the percent of milkfat.

(g) Except as provided in subdivisions (i) through (k), keep all products under refrigeration at temperatures of 45°F (4.7°C) or lower after packaging and until ready for shipment.

(h) Ensure that the products are not placed directly on floors or exposed to foreign odors or conditions such as drippage due to condensation which might cause package or product damage.

(i) If plastic cream or frozen cream is to be quick-frozen, place the product in quick freezer rooms immediately after packaging, and ensure rapid and complete freezing within 24 hours by doing all of the following:

(*i*) Pile or space the packages in a manner that allows air to freely circulate among and around the packages.

(*ii*) Maintain the rooms at -10°F (-23°C) or lower.

(*iii*) Equip each room to provide sufficient high-velocity air circulation for rapid freezing.

(*iv*) After the products have been completely frozen, retain them in the quick freezer or transfer them to a freezer storage room for continued storage.

(j) Maintain each freezer storage room at a temperature of 0°F (-18°C) or lower and ensure each freezer storage room has adequate air circulation.

(k) Place butter intended to be held more than 30 days in a freezer storage room immediately after packaging, and if that butter is not frozen before being placed in the freezer, arrange each unfrozen butter package in a manner that permits rapid freezing, and keep each package in that arrangement until frozen.

**History:** 2001, Act 267, Eff. Feb. 8, 2002;—Am. 2008, Act 147, Eff. June 27, 2008.


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