

OPERATIONS AND OPERATING
PROCEDURES

§ 58.236 Pasteurization and heat treatment.

All milk and buttermilk used in the manufacture of dry milk products and modified dry milk products shall be pasteurized at the plant where dried, except that acidified buttermilk containing 40 percent or more solids may be transported to another plant for drying without repasteurization. Provided the condensed product is handled according to sanitary conditions approved by the Administrator.

(a) *Pasteurization.* (1) All milk or skim milk to be used in the manufacture of nonfat dry milk shall be pasteurized prior to condensing at a minimum temperature of 161 °F. for at least 15 seconds or its equivalent in bacterial destruction. Condensed milk products made from pasteurized milk may be transported to a drying plant, provided that it shall be effectively repasteurized at the drying plant, prior to drying, at no less than 166 °F. for 15 seconds or its equivalent in bacterial destruction.

(2) All buttermilk to be used in the manufacture of dry buttermilk or dry buttermilk product shall be pasteurized prior to condensing at a temperature of 161 °F for 15 seconds or its equivalent in bacterial destruction.

(b) *Heat treatment—(1) High-heat.* The finished product shall not exceed 1.5 mg. undenatured whey protein nitrogen per gram of nonfat dry milk as classified in the U.S. Standards for Grades of Nonfat Dry Milk (Spray Process).

(2) *Medium-heat.* The finished product shall show undenatured whey protein nitrogen between the levels of “high-heat” and “low-heat” (1.51 to 5.99 mg.).

(3) *Low-heat.* The finished product shall show not less than 6.0 undenatured whey protein nitrogen per gram of non-fat dry milk as classified in the U.S. Standards for Grades of Nonfat Dry Milk (Spray Process).

[40 FR 47911, Oct. 10, 1975. Redesignated at 42 FR 32514, June 27, 1977, and further redesignated at 46 FR 63203, Dec. 31, 1981, as amended at 56 FR 33855, July 24, 1991]

§ 58.237 Condensed surge supply.

Surge tanks or balance tanks if used between the evaporators and dryer shall be used to hold only the minimum amount of condensed product necessary for a uniform flow to the dryers. Such tanks holding product at temperatures below 150 °F. shall be completely emptied and washed after each 4 hours of operation or less. Alternate tanks shall be provided to permit continuous operation during washing of tanks.

§ 58.238 Condensed storage tanks.

(a) Excess production of condensed product over that which the dryer will take continuously from the pans should be bypassed through a cooler into a storage tank at 50 °F. or lower and held at this temperature until used.

(b) Product cut-off points shall be made at least every 24 hours and the tank completely emptied, washed, and sanitized before reuse.

§ 58.239 Drying.

Each dryer should be operated to produce the highest quality dry product consistent with the most efficient operation. The dry products shall be removed from the drying chamber continuously during the drying process.

§ 58.240 Cooling dry products.

Prior to packaging and immediately following removal from the drying chamber the dry product shall be cooled to a temperature not exceeding 110 °F, however, if the product is to be held in a bulk bin the temperature should be reduced to approximately 90 °F but shall be not more than 110 °F.

§ 58.241 Packaging, repackaging and storage.

(a) *Containers.* Packages or containers used for the packaging of nonfat dry milk or other dry milk products shall be any clean, sound commercially accepted container or packaging material which will satisfactorily protect the contents through the regular channels of trade, without significant impairment of quality with respect to flavor, wholesomeness or moisture content under the normal conditions of