done in such a manner as to insure a homogeneous mixture throughout the batch.

§58.727 Adding optional ingredients.

As each batch is added to the cooker, the predetermined amounts of salt, emulsifiers, color, or other allowable optional ingredients shall be added. However, a special blending vat may be used to mix the ground cheese and other ingredients before they enter the cooker to provide composition control.

§58.728 Cooking the batch.

Each batch of cheese within the cooker, including the optional ingredients, shall be thoroughly commingled and the contents pasteurized at a temperature of at least 158 °F. and held at that temperature for not less than 30 seconds or any other equally effective combination of time and temperature approved by the Administrator. Care shall be taken to prevent the entrance of cheese particles or ingredients after the cooker batch of cheese has reached the final heating temperature. After holding for the required period of time, the hot cheese shall be emptied from the cooker as quickly as possible.

§58.729 Forming containers.

Containers either lined or unlined shall be assembled and stored in a sanitary manner to prevent contamination. The handling of containers by filler crews should be done with extreme care and observance of personal cleanliness. Preforming and assembling of pouch liners and containers shall be kept to a minimum and the supply rotated to limit the length of time exposed to possible contamination prior to filling.

§ 58.730 Filling containers.

Hot fluid cheese from the cookers may be held in hotwells or hoppers to assure a constant and even supply of processed cheese to the filler or slice former. Filler valves shall effectively measure the desired amount of product into the pouch or container in a sanitary manner and shall cut off sharply without drip or drag of cheese across the opening. An effective system shall be used to maintain accurate and precise weight control. Damaged or unsatisfactory packages shall be removed

from production, and the cheese may be salvaged into sanitary containers, and added back to cookers.

§ 58.731 Closing and sealing containers.

Pouches, liners, or containers having product contact surfaces, after filling shall be folded or closed and sealed in a sanitary manner, preferably by mechanical means, so as to assure against contamination. Each container in addition to other required labeling shall be coded in such a manner as to be easily identified as to date of manufacture by lot or sublot number.

§58.732 Cooling the packaged cheese.

After the containers are filled they shall be stacked, or cased and stacked in such a manner as to prevent breaking of seals due to excessive bulging and to allow immediate progressive cooling of the individual containers of cheese. As a minimum the cheese should be cooled to a temperature of 100 °F. or lower within 24 hours after filling. The temperature of the cheese should be reduced further, before being shipped or if storage is intended.

§58.733 Quality control tests.

- (a) Chemical analyses. The following chemical analyses shall be performed in accordance with the appropriate edition of the Official Methods of Analysis of the AOAC as specified in the appropriate Standards of Identity or in accordance with methods that give equivalent results.
- (1) Cheese. A representative sample of cheese used in the manufacture of pasteurized process cheese products shall have been tested prior to usage to determine its moisture and fat content.
- (2) Pasteurized process cheese products. As many samples shall be taken of the finished product direct from the cooker, hopper, filler, or other location as is necessary to assure compliance with composition requirements. Spot checks should be made on samples from the cooker as frequently as is necessary to indicate pasteurization by means of the phosphatase test, as well as any other tests necessary to assure good quality control.
- (b) Examination of physical characteristics. As many samples shall be taken as

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is necessary to assure meeting the required physical characteristics of the products. Representative samples shall be taken from production for examination of physical characteristics. The samples shall be examined at approximately 70 $^{\circ}$ F. the first day of operation after the date of processing for the following characteristics: (1) Finish and appearance, (2) flavor, (3) color, (4) body and texture, and (5) slicing or spreading properties.

(c) Keeping quality. During processing or preferably from the cooled stock select sufficient samples at random from the production run. The samples should be stored at approximately 50 °F. for 3 months for evaluation of physical characteristics as in paragraph (b) of this section. Additional samples may be selected and held at different temperatures or time.

(d) Weight control. During the filling operation as many samples shall be randomly selected and weighed from each production run as is necessary to assure accuracy of the net weight established for the finished products.

REQUIREMENTS FOR PROCESSED CHEESE PRODUCTS BEARING USDA OFFICIAL IDENTIFICATION

§ 58.734 Official identification.

Only process cheese products manufactured and packaged in accordance with the requirements of this part and with the applicable requirements in subpart A of this part which have been officially inspected in process and found to be in compliance with these requirements may be identified with official USDA Quality Approved Inspection Shield.

§ 58.735 Quality specifications for raw materials.

(a) Cheddar colby, washed or soaked curd, granular or stirred curd cheese. Cheese, used in the manufacture of pasteurized process cheese products which are identified with the USDA official identification shall possess a pleasing and desirable taste and odor consistent with the age of the cheese; shall have body and texture characteristics which will impart the desired body and texture characteristics in the finished product; and shall possess finish and

appearance characteristics which will permit removal of all packaging material and surface defects. The cheese shall at least meet the requirements of U.S. Standard Grade for Bulk American Cheese for Manufacturing provided the quantity of the cheese with any one defect as listed for U.S. Standard Grade is limited, to assure compliance with the specifications of the finished product.

- (b) Swiss. Swiss cheese used in the manufacture of pasteurized process cheese and related products bearing official identification shall be U.S. Grade B or better, except that the cheese may be blind or possess finish characteristics which do not impair the interior quality.
- (c) *Gruyere*. Gruyere cheese used in the manufacture of process cheese and related products shall be of good wholesome quality and except for smaller eyes and sharper flavor shall meet the same requirements as for Swiss cheese.
- (d) *Cream cheese, Neufchatel cheese.* Mixed with other foods, or used for spreads and dips shall possess a fresh, pleasing and desirable flavor.
- (e) Cream, plastic cream and anhydrous milkfat. These food products shall be pasteurized, sweet, have a pleasing and desirable flavor and be free from objectionable flavors, and shall be obtained from milk which complies with the quality requirements as specified in §58.132 of this subpart.
- (f) Nonfat dry milk. Nonfat dry milk used in officially identified cheese products shall meet the requirements of U.S. Extra Grade except that the moisture content may be in excess of that specified for the particular grade.
- (g) Whey. Condensed or dry whey used in officially identified cheese products shall meet the requirements for USDA Extra Grade except that the moisture requirement for dry whey may be waived.
- (h) Flavor ingredients. Flavor ingredients used in process cheese and related products shall be those permitted by the Food and Drug Standards of Identity, and in no way deleterious to the quality or flavor of the finished product. In the case of bulky flavoring ingredients such as pimento, the particles shall be, to at least a reasonable