

STANDARD OPERATING PROCEDURE – Operation of the Bag Filling Machine**INTRODUCTION**

Dairy products manufactured at the Creamery for wholesale distribution to the dining halls are packaged using a bag-in-a-box system. Cleanliness and correct operation of the bag filling machine reduces the possibility of product contamination and product loss.

MATERIALS

1. Supplies
 - a. Gloves
 - b. Bags
 - c. Clean boxes
 - d. Product identification tags stamped with the code date
 - e. Production report forms
 - f. Sanitizer
 - g. Chlorinated alkaline cleaner
2. Cautions
 - a. Boxes where bags are stored should be kept covered when not in use.
 - b. The stop switch may be used at any point during the filling operation.
 - c. Sanitizer may cause corrosive damage to skin and eyes. Wear goggles and gloves when using the concentrate. Avoid breathing the vapors.
 - d. Exposure to chlorinated alkaline cleaner may cause chemical burns to the skin and eyes.

PROCEDURE

1. General protocol:
 - a. Daily production is determined on a weekly basis and is based upon current inventory as well as historical usage patterns.
 - b. When packaging milk products, begin with skim milk, then proceed to 2% milk, whole milk, and finish with chocolate milk.
2. Pre-operational procedures:
 - a. Check that the air pressure is on.
 - b. Check that the 120 V electrical supply is turned on.
 - c. Prepare sanitizing solution and test its concentration. Pump this solution through the pasteurizer, storage tanks, lines to the bag filler and filler tubes. Then permit it to run onto the floor.
3. Bag filling procedure:
 - a. Set the counter to the proper number for the desired fill. This is based upon the characteristics of the specific product and thus some adjustments may be needed.
 - b. Place the bag spout into the spout holder and capper mechanism.
 - c. Purge air from the system by allowing two to three gallons of product to run into the first bag. Push stop, then pull the stop button out and push start. The bag will be recapped and ejected.
 - d. Insert new bag and continue the filling operation.
 - e. Attach to each box a product identification tag with the code date stamped on it.
 - f. Place filled boxes in the cooler as soon as possible, storing them according to their code date.
 - g. When changing from one type of product to the next, the latter is used to displace the former from the lines. Discard the product during this time and resume packaging once pure product is delivered to the filler tubes.

4. Post-operational procedures:
 - a. Pump clean water from the last pasteurized storage tank used through the lines to the bag filler and then onto the floor.
 - b. Connect the lines to the CIP system.
 - c. Use a brush to hand clean the outside surfaces of the bag filling machine and valves.
 - d. Activate the filler line circuit of the CIP system. The valve should pulsate automatically during this operation.

RECORDKEEPING

1. Record the results from the sanitizer and detergent concentration tests on the sanitation test record.
2. Complete the daily production sheet, recording the number of bags filled with each product as well as the total number of gallons.

The following individual is responsible for implementation of this SOP and has the overall authority on-site:

Name: _____ Title: _____ Date: _____