Wiskerchen Cheese Inc. SOP	
Title: Pasteurization	# 2.048

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4/5/11	Jesse Norton	John Wiskerchen	1	2/23/16	Danette Jepsen	4/5/11	

Responsible Party: Trained Pasteurizer Operators

I. Importance

Pasteurization is important for milk products as it serves as a kill step to eliminate pathogenic organisms such as Listeria and Salmonella from the milk used to make cheese and other dairy products.

High Temperature Short Time pasteurization (HTST) is utilized to ensure pasteurization of milk. Pasteurization must be performed at 161 ºF for at least 15 seconds. This is a critical safety limit for the products produced by this facility.

II. Daily Checks

At the start of each day an operator shall check the following to ensure proper pasteurization of milk products:

1. Check to see that all regulatory seals are intact and document the check on the Pasteurizer Seals Check form.
2. Perform a HTST cut-in and Cut-out temperature check:
   a. Startup the pasteurizer.
   b. Allow the pasteurizer to move into forward flow (indicator light will be green).
   c. Dial down the pasteurizer temperature to 160 ºF.
   d. When the indicator light turns red and a divert occurs (indicated by the pen dipping), record the temperature indicated on the chart recorder as the cut-out temperature.
   e. Dial up the pasteurizer temperature to 165 ºF.
   f. When the indicator light turns green and product is in forward flow, record the temperature indicated on the chart recorder as the cut-in temperature.
   g. Mark on the chart that a cut-in/cut-out check was performed by writing “cut-in/cut-out” on the chart where the recording pen has indicated the temperature for the process.
   h. If the cut-out temperature is below 161 ºF, you must notify Plant Management and the Quality Assurance Manager immediately.

   The cut-in/cut-out check is important because it proves that the pasteurizer will automatically divert under pasteurized milk to prevent it from reaching our vats and contaminating product.
3. Perform a check of the recording thermometer on the chart (Pen) against the indicating thermometer on the chart recorder and document the temperatures observed. The two should be within 1 ºF of each other. If the difference is greater than 1 ºF you must notify Plant Management and the Quality Assurance Manager immediately.
4. Confirm that the pressure differential between the raw and pasteurized sides of the plates is greater than 1 PSI. This is important because the pressure differential prevents raw milk from mixing with the pasteurized product.

III. Problems

If there are any problems with the pasteurizer Plant Management and the Quality Assurance Manager shall be informed. Problems shall be recorded on the pasteurizer charts. Corrections and/or explanations of issues shall be recorded on the pasteurizer charts.

1. What do I do if the pasteurizer cannot maintain 161 ºF for 15 seconds?
   a. Check to see that the chart recorder has recorded the automatic divert and record the reason for the divert.
   b. Contact your Department Head, Plant Management, and/or the Quality Assurance Manager.
   c. Place product on hold going back to the last vat that was fully pasteurized based on the chart record.
   d. Always document the issue.

2. What do I do if the pasteurizer goes above 175 ºF?
   a. Contact the Quality Assurance Manager.
   b. Record the high temperature and indicate it on the chart.

The concern over the upper temperature is to prevent scalded milk.

Approved By: _____ Date: _____