

STANDARD OPERATING PROCEDURE – Chart Usage**INTRODUCTION**

The Grade “A” Pasteurized Milk Ordinance requires that all raw milk storage tanks and pasteurizing equipment have recording charts in place during their operation. Likewise, the Penn State Berkey Creamery Juice HACCP Plan requires the recording of product storage temperatures between the time of pasteurization and packaging. Additional charts, though not required, can be helpful in illustrating the process steps involved in product manufacture as well as diagnosing any product failures that may occur.

PROCEDURE

1. General requirements
 - a. Each chart should display our plant name, address and number.
 - b. The person installing the chart should sign or initial it and note the date it was started.
 - c. Date, time and an equipment identifier should be clearly visible.
 - d. Written notations should have a line drawn to the time at which the event occurred.
 - e. Note any equipment failures or unusual occurrences that affect the data output.
 - f. Do not allow any overlapping of recorded data.
2. Raw silo charts
 - a. Note when milk was received.
 - b. Note when the silo was washed and / or sanitized.
3. HTST pasteurization charts
 - a. Note the cut-in and cut-out temperatures, as well as the recording and indicating thermometer temperatures.
 - b. Verify the operation of the event pen during normal operation and in divert mode.
 - c. Determine the cut-in, cut-out, and indicating thermometer temperatures at the beginning of each day's operation. Note the results on the chart.
 - d. Note the name of all products, their volume, and their destination at the appropriate time of processing.
 - e. Note all CIP and sanitizing information.
 - f. Note employee shift changes by adding the new employee's name or by changing charts.
4. Vat pasteurization charts
 - a. Identify the raw product and note when it started entering the vat.
 - b. Note when pasteurization begins and ends along with the air space and indicating thermometer temperatures at both times.
 - c. Note all pre-soak, CIP, and sanitizing information.
5. Pasteurized product storage tank charts
 - a. Identify the pasteurized product and note when it started entering the tank.
 - b. Note all CIP and sanitizing information.
6. Processing tank charts
 - a. Identify the product and note when it started entering the tank.
 - b. Note when supplementary ingredients, such as cultures or rennet, were added.
 - c. Note when critical process steps occurred. This may include steam application and shut-off, cooling water application and shut-off, and holding times.
 - d. Note all CIP and sanitizing information.

RECORDKEEPING

1. All temperature and flow rate pasteurization charts shall be preserved for three months.
2. HACCP records for refrigerated products shall be held for at least one year, and for at least two years for frozen, preserved or shelf-stable products.

REFERENCES

1. Grade "A" Pasteurized Milk Ordinance (most recent revision)
U.S. Department of Health and Human Services
Public Health Service
Food and Drug Administration

2. Penn State Berkey Creamery Juice HACCP Plan
Orange Juice from Concentrate – with Pulp

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

Name: _____ Title: _____ Date: _____