Penn State Berkey Creamery

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SANITATION STANDARD OPERATING PROCEDURE – Cross-Contamination Prevention

INTRODUCTION

During processing there are numerous ways that a product can become contaminated with a microbiological hazard. The three most common means of cross-contamination are contact with unclean equipment, mixing pasteurized with raw products, and environmental contamination.

PROCEDURE

- 1. Periodically monitor equipment such as silo tanks, valves, agitator shafts, shielding and venting for cracks and crevices. Improper welds and irregular surfaces are difficult to clean and sanitize properly and thus can become a harborage for microorganisms.
- 2. Product handling:
 - a. Minimize the amount of a food products handling, environmental exposure, and time / temperature abuse following pasteurization.
 - b. Discard any product that has been mishandled, not protected from contamination, or not maintained at 45°F (7.2°C) or less.
 - c. When reclaiming products, repasteurization is required, using higher temperatures and /or longer holding times. All equipment involved in the reclaiming process should be cleaned and sanitized daily.
 - d. Isolate returned products and outdated products from all other plant operations.
- 3. Cleaning supplies:
 - a. Eliminate the use of absorbent items such as rags and sponges in processing areas, as well as porous materials such as wooden handled tools and brushes. Use impervious materials such as metal or plastic instead.
 - b. Brushes should be segregated; raw and pasteurized, internal and external surfaces.
 - c. Brushes should be maintained in good condition, sanitized between uses, and stored properly when not in use.
- 4. Utilize shielding over food and food contact surfaces to minimize contamination with condensate, aerosols, dust, and other airborne hazards.
- 5. Monitor the cleanliness of overhead shielding, conveyors, conveyor belts, chain rollers and supports. Maintain a cleaning and sanitizing regimen for all conveyors.
- 6. Air blow and agitation equipment should be monitored for cleanliness. These are not usually cleaned adequately by CIP methods and therefore should be dismantled, cleaned manually, and sanitized daily.
- 7. Do not break or slash containers over top a vat.
- 8. Exercise care when handling packing materials, especially where open containers are conveyed through non-processing areas.
- 9. Heating, ventilating, and air conditioning systems:
 - a. Should maintain positive pressure in areas where food products are exposed.
 - b. Minimize air flow from potentially contaminated areas to processing and packaging areas.
 - c. Outside air should be filtered and free of condensate.
 - d. Air flow should be controlled so that it does not blow directly onto food, food contact surfaces, as well as filling and packaging areas.
 - e. Air filters must be effective in preventing the passage of microorganisms. They must also be kept clean and replaced when needed.
 - f. All heating, ventilating and air conditioning systems should be periodically cleaned, including air systems in refrigerated areas.
 - g. Condensate drip pans and drain lines should be regularly monitored to ensure they are not providing an environment for microbial growth.

10. Process air systems:

- a. Systems that incorporate air directly into the food product must be easily cleaned and designed to minimize contamination.
- b. Process air systems should contain filters that are capable of removing extraneous matter.
- c. Sanitary check valves that prevent product from backing up into the air lines should be provided when necessary.
- 11. Use of push carts in the Food Science Building:
 - a. There is a risk of cross-contamination when push carts are removed from the Creamery and used to transport items to the third and fourth floors in the Food Science Building and vice versa. Therefore push carts used in the Creamery processing plant, Food Science pilot plants and sensory laboratory will have blue tape on their handles, and push carts for the third and fourth floors will have red tape on their handles.
 - b. Blue labeled carts are used to transport food and food ingredients on the first and second floors. In order to improve barrier hygiene methods they should not be taken to the fourth floor.
 - c. Red labeled push carts should not come in direct contact with any food or ingredients. Items sent or shipped to the third and fourth floors should be transported on red labeled carts or a dolly. If these carts are used to take supplies from the loading dock to the third and fourth floors, they should not leave the immediate vicinity of the freight elevator. When not in use red labeled carts should be stored on the third fourth floors.
 - d. Containers, samples, ingredients, packages and laboratory equipment should not be transferred from one type of cart to another.
 - e. If you have any safety concerns or think that accidental cross contamination has occurred, call the Creamery office at 814-865-7535 immediately.

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