

Sanitation Case Study

The Swamy Varenyky Company (SVC) makes fresh refrigerated varenyky to sell through the foodservice market channel to the restaurants and outdoor caterers. With the new automated stuffing process, SVC has captured the majority of sales of varenyky in the local marketplace, but now is looking to expand to sell this product throughout the region. Currently, the product has a stated shelf-life date of only 4 days from time of production, but in order to expand sales into a broader market, the company will need to increase the shelf-life to 7 days or more. The problem is that the product starts to have a noticeable off-flavor at day 4, even though product is held at the appropriate storage temperature. His competitors who make meat-filled varenyky by hand are getting 7 days or more on their product (verified through competitive sensory analysis).

Currently SWC is not doing any testing. There are no problems with storage temperature control, and process controls for cooking temperature are being met.

His employees have provided a number of reasons for the issue. One item noticed was that there is an off-odor present in the room in the morning before production starts. One employee expressed concern for the onion used in the meat stuffing preparation. The onions were soft during dicing, although those soft components were removed before dicing and sautéing. One employee thinks the product is freezing too fast.

Dough production starts first thing in the morning and is done by the middle of second shift. Dough ingredients are mixed and made into large balls and these balls are fed into the filler. The meat stuffing is made from a combination of meat, onions, and spices. The meat is mixed with spice and sautéed onions. This mixture is further cooked until the meat mixture reaches a minimum temperature of 75C.

The stuffing / forming machine is responsible for making the filled varenyky product from raw dough and cooked meat mixture. It begins by loading balls of dough into the hopper and this is fed into the machine rollers that flatten the dough into sheets. The meat mixture is then deposited onto the sheets by a dispensing nozzles. The former section of the machine cuts the dough around the deposited filling and folds one end to form a pillow around the mixture.

The completed pillow is then conveyed to a continuous flow blast chiller. The chilling process makes the pillow harder to allow for packing. The pillows are hand-packed into trays which are overwrapped with clear plastic.

The plant and equipment is cleaned each night. This follows 2 full shifts of production. There is very little interaction between quality control to sanitation, except for a pre-operational equipment check to ensure there are no remaining food particles on the equipment.

As their consultant, you have been asked to suggest a course of action.

Questions:

In what ways can this issue be related to sanitation?

What tests would you recommend doing immediately to determine the cause of the spoilage issue?

What tests would you recommend establishing as part of an ongoing verification of the sanitation process?

What operational changes might you suggest based on what you have read above?

What are some questions you would ask the sanitation manager regarding the program for this facility?

Is there anything you would want to know from the Quality Manager or Technicians?

Is there anything that you would personally want to watch?