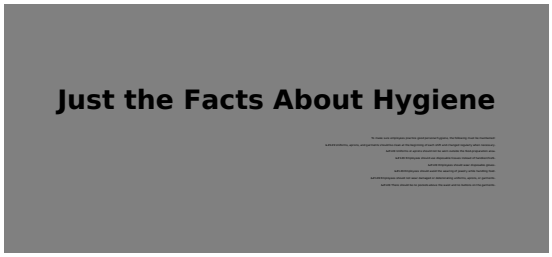
Adopting a NewUniformApproach toFood Safetyand HACCP

Because the responsibility of HACCP falls to each individual processing plant, it's smart to rely on trusted sources for sanitary garments. Here's how to alleviate a critical control point and reduce the risk of contamination



By Dr. Al Baroudi

The federal government has made Hazard Analysis and Critical Control Points (HACCP) the centerpiece of food safety initiatives. The system is designed to identify, prioritize, and control potential problems. Under HACCP, it is every company's prerogative to rank the severity of the physical, chemical, and microbial dangers in a process. While uniforms and garments do not typically constitute the weakest link, it's important to recognize the risks associated with the improper care, cleaning, and handling of them.

Of the 10 most common food handling practices that cause food poisoning, two involve employee uniforms and garments: cross-contamination and infected persons. Preventative measures that can reduce these risks include the proper training of all personnel who access a facility, making sure employees practice good personal hygiene, effective cleaning of all areas, and using reputable suppliers.

When looking at the role uniforms and garments play in a plant's HACCP program, you should expect more than just clean garments. Uniform and work apparel companies should offer specialized HACCP-conscious uniform programs to companies whose success is dependent on food safety. In fact, uniform companies should adopt a HACCP mentality as part of their daily business so that their customers have one less control point to address. In addition, uniform suppliers should include washing formulas and transport methods in their HACCP program to ensure that every step of their processes guards against cross-contamination. Let's review these two key areas below.

Wash Formulas and Temperature

It has been verified by many scientific evaluations that linen and garments processed in a well-engineered wash formula are hygienically clean upon completion of the washing process. Hygienically clean is defined as "a reduction in

microbial counts to a level free of bacteria, viruses, and other disease-producing organisms," according to the Centers for Disease Control and Prevention. Soaps or detergents loosen soil and also have some microbicidal properties. Hot water provides an effective means of destroying microorganisms, and a temperature of at least 160&#176F for a minimum of 25 minutes is commonly recommended for hot-water washing. Regardless of whether hot or cold water is used for washing, the temperatures reached in drying, especially during steaming, provide an additional layer of antimicrobial protection. Once clean apparel passes through a steam tunnel, it should be taken from the racks and sorted three times to ensure worn or deteriorating garments are removed from the supply chain.

The preceding process is highly effective at producing hygienically clean garments, but there is still a risk of cross-contamination after the garments are washed, cleaned, and processed. Such cross-contamination can occur at any point after the drying and conditioning processes within the processing plant, during transportation to distribution centers, or even on the delivery trucks. This is why wrapping clean garments in a polyurethane bag shortly after conditioning can virtually eliminate the risk of cross-contamination.

Transport and Delivery

It's important to understand the safeguards that uniform suppliers must take to avoid cross-contamination during transport and delivery. Some of the critical control points are listed below:

1. Garment Material and Design: The right garment materials can promote both food and employee safety. Some materials used for aprons, such as vinyl and polyurethane, have cleanability issues. A vinyl apron, for example, tends to stiffen after repeated sanitizing and exposure to cold temperatures. Plus, the plasticizers that make vinyl pliable start to leach out. On occasion, the material becomes hard and brittle and can start flecking into the food supply. Regarding garment design, work apparel &#151 shirts, pants, smocks &#151 must be specifically designed for food-processing environments. There should be no buttons or pockets that could add potential for contaminants. In addition, color-coded garments can help managers better identify workers and visitors who could be contaminating food products by being outside their designated work areas. Research indicates 100 percent spun-polyester garments provide higher levels of anti-microbial protection as compared to cotton.

2. Carts and Plastic Tubs: Carts used to transport clean clothes should either be designated for carrying clean clothes only or be equipped with a disposable plastic liner or a disposable nylon liner/cover to ensure clean clothes do not come into contact with carts or soiled garments.

3. Pest Control: Each laundry-processing plant should have an effective pest control program in place to minimize possible hazards.

4. Gloves: Disposable gloves should be worn during the sorting of dirty garments, with all sorters wearing disposable gloves that are changed regularly. Gloves should also be worn by handlers of clean apparel before it's poly-wrapped.

5. Service Route: The process for servicing accounts must be completed in a way that prevents cross-contamination. Cross-contamination can occur when dirty clothes are picked up and placed in the same cart in which clean garments are delivered. Dirty garments should be placed in a disposable plastic laundry bag within the delivery cart and should be stored in a specific location on the truck to avoid cross-contamination. The delivery person should wear disposable gloves when delivering clean garments and picking up dirty ones.

6. Training: All vendor employees must be trained regularly and certified on basic food safety and cross-contamination prevention. The vendor should also be able to inform your employees about proper handling and storage of clean and soiled garments. In addition, vendor employees should be trained on your company's HACCP work-apparel cleaning procedures that revolve around specific processes and steps in the wash process, including standard procedures and formulas in washing protocols to ensure maximum cleanliness. All precision-washed garments must undergo a steam-tunnel conditioning process with temperatures over 230&#176F to ensure bacteria elimination as well as a set-steps quality inspection. The entire process must be documented, step by step, for compliance.

7. Lockers: Lockers within the food plant should be cleaned on a regular basis to avoid contamination. Lockers must be kept in a designated area away from potential contamination.

8. Service Trucks: Service trucks should be kept free of dust and dirt to avoid contamination. Soiled and cleaned garments must be physically separated on trucks to prevent cross-contamination.

9. Mats: Regularly scheduled cleaning and change-out of mats at doorways and within the plant must be conducted to ensure they are safe and clean.

10. Plant Racks: Storage racks must be cleaned regularly to avoid contamination. Using lightweight shelves is the recommended alternative to wood and laminated material because they are resistant to chipping and breakage while providing economical storage.

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