Using the Right Connection is a Must in Food and Beverage Industries

By Phil Kimble

When times are busy, one way manufacturing facilities can increase production is to add additional shifts. This is particularly important in the food and beverage industries.

Additional shifts means equipment can run longer between cleanings. To keep bacteria from forming, the finished-process lines of any edible goods plant must be cleaned when the process stops or at predetermined intervals. A "bad" batch can wreak havoc with a company's image as well as its financial well-being. Two methods are commonly used for cleaning. The Clean In Place (CIP) process runs a hot soapy solution through the system with all components, including hoses, in place, following with a hot water rinse. In the Clean Out of Place (COP) system all the component pieces are removed and cleaned in a wash tank or with steam.

One company had just added a third shift to help production meet demand. In many instances, these start-up shifts are undermanned, under supervised and overwhelmed. This new shift was having a particularly hard time keeping production going. The "gremlins" were having their way with bearings, valves, hoses, etc.

When a hose assembly failed, two workers, under the direction of their supervisor, went to the storeroom for a replacement, but found none. Fearing the wrath of the plant manager at the end of their shift, the workers decided to improvise. Although they were without the replacement hose, they did find some couplings that had the same connection as those on the assembly that failed. They figured if they could replace the leaking coupling with one of the "new" ones, they could get production back up and running.

Searching the storeroom, they found clamps that they had seen in other parts of the plant and a tool to install them. They then went about removing the leaking coupling from the hose and installing the new coupling. The repaired assembly was put in place, the valves were opened, production was resumed, and the workers went about their business without mentioning this repair to anyone.

During routine testing, the Quality Control lab found unusually high bacterial counts in samples taken from the packaging line. Because all packages are coded, they knew the approximate production date. The entire plant came to a screeching halt and a national recall for this product was issued. The plant manager summoned all supervisors from all shifts for an emergency meeting.

The question was raised concerning any recent replacements anywhere in the process line. The third shift supervisor answered that he had a couple of his guys replace a leaking hose several weeks ago. Upon inspection of this replacement assembly, both the plant manager and the shift supervisor were shocked to see one end of the assembly with a banded-on coupling. This style of coupling is to be used on the "raw" side of the plant only. Its traditional shank does not conform to Food and Drug Administration standards for sanitary couplings. Even though all CIP cleaning and sanitary procedures were followed after this replacement assembly was put into service, bacteria propagated at the end of this shank contaminated a vast quantity of product.

Improvisation is great for stand-up comedians, not for hose assemblies. Contact your local Dixon distributor for the Right Connection. Remember, you can have your cake, but you might not want to eat it.