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As More Players Come to the International Food Supply Table, Risk-Management Challenges Loom

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Regain a Competitive Edge with Smarter Hygiene

Video Monitoring, Ozonated Water Help Keep Food Processes Safe | BY AL BAROUDI, PH.D.

Food processors and food retail establishments can invest in low-cost employee hygiene technology and deal more aggressively with hygiene solutions such as handwashing, clean hair, clean uniforms, produce sanitizing, proper footwear and effective glove use.

Remote video auditing (RVA) technology from Arrowsight (Mount Kisco, N.Y.) is used by processors and food service establishments to makes sure employees wash their hands before leaving the lavatory.

Unfortunately, this important hygiene step is often disregarded, paving the way for foodborne illness. According to the Centers for Disease Control and Prevention (CDC), food poisoning kills about 5,000 people a year in the U.S., sickens 76 million and sends 375,000 to the hospital.

When it comes to preventing and controlling the spread of germs in food processing operations, it's hard to overstate the importance of implementing and enforcing proper employee hand washing.

The food industry has made tremendous strides with employee hygiene and these accomplishments have compelled many companies to improve practices.

The biggest indicator of this, of course, is the almost universal industry adoption of HACCP, the food safety protocol used at all stages of food production and preparation. Another positive sign is that the vast majority of food processing employees on the front lines want to do things the right way.

Despite these steps, there is still much to be done. This is especially true in light of the recent *E. coli* outbreaks at well-known fast-food restaurants. One has to look no further than the produce industry in California – which lost more than $100 million – to see how a single incident can cost a restaurant chain millions of dollars and harm a well-established brand overnight. For example, a recent outbreak sickened 71 people and sent 53 to hospitals. Another incident resulted in 81 people becoming ill, with 26 hospitalized. The causes: Contaminated lettuce and bad spinach.

New technology has a vital role to play in employee hygiene. The question, however, is whether industry adoption will be quick or slow. It's a lot like pasteurization was at the turn of the 20th century. At first, people were resistant to change because of fears that pasteurization would alter the taste of milk. Now, no one would even consider drinking or buying milk unless it was pasteurized.

Employee-Related Contamination

Along with bird, rodents and insects, there are employee-related sources of contamination, including hands, coughing, sneezing and hair. All can result in harmful microorganisms contaminating raw materials, growing during processing and even surviving washing and heat. There are also risks of contamination associated with uniforms and garments.

A hand disinfection unit is installed outside the lavatory. Every time the lavatory door opens, a camera and digital video recorder are automatically activated to monitor employees' use of the hand disinfection unit. By remotely viewing and reporting hand disinfection data back to management daily and weekly, Arrowsight's auditors have helped improve compliance from a reported 35 percent to more than 90 percent compliance.

Take something as simple as hand washing. The vast majority of employees just stick their hands under the water for a few seconds. But to properly clean hands, employees should wash 20 seconds with cold water, 20 seconds with warm water and 20 seconds with soap, then rinse.

That's where RVA comes into the picture.

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"Using RVA, we've seen great success improving behavior through proper feedback," explains Mark W. Moshier, president of Arrowsight's Manufacturing Division. "Remote Video Auditing is really an analysis, verification and training tool. It's good for all three, and I like to use the analogy of a coach looking at game film. Successful coaches in any discipline regularly use film not to remove their athletes, but to analyze what's going on and what the opportunities are, which is what we seek to do for our clients in the food industry who have adopted RVA."

RVA can be used within plants to improve employee compliance with a wide number of food safety protocols and increase plant efficiency and yield.

The use of ozonated water in lavatories and throughout a plant can improve employee hygiene because it kills bacteria on contact using cold water and without chemicals. Ozone water is a potent organic bactericide that disinfects 3,000 faster than chlorine and reduces

contamination from salmonella, *Listeria*, *E. coli o157:H7* and *Shigella*. It is also environmentally friendly – its only byproduct is oxygen.

Eco-Safe Systems USA of Los Angeles offers a variety of ozone water disinfection units for processing plants and food service facilities.

Finally, proper laundering and care of employee uniforms and garments is another way to improve plant hygiene and reduce cross-contamination. Aramark Uniform Services (Burbank, Calif.) manufactures its own uniforms and steam cleans and sanitizes them at temperatures exceeding 230° F. They also have implemented a thorough HACCP employee-training program to deliver the highest sanitation standards to their customers and the food industry.

Conclusion

New technology has a vital role to play in employee hygiene. The question, however, is whether industry adoption will be quick or slow. It's a lot like pasteurization was at the turn of the 20th century. At first, people were resistant to change because of fears pasteurization would alter the taste of milk. Now, no one would consider drinking or buying milk unless it was pasteurized.

I believe emerging pathogens, like *Listeria*, some strains of *Salmonella* and *E. coli O157:H7* as well as others, are here to stay for the near future. They are increasing and becoming more potent because of our lifestyles, bigger supermarkets, longer distances between retailers and suppliers, and the abuse of antibiotics in processing, among other factors.

At the same time, increased vigilance by public health authorities and more advanced testing and techniques are enabling outbreaks to be detected faster and with more precision.

We should accelerate adoption of new technologies to minimize and eliminate risks to employees and the public. Now is the time, and the technology is here. ■

Dr. Baroud is president of Food Safety Institute (FSI), International, a Henderson, Nev.-based consulting company with offices in Newport Beach, Calif.