

Food Safety: The **Whole** Package

Think HACCP is just for food? Think again. HACCP has as much to do with packaging as it does with food.

“Despite incredible advances with microbial testing, awareness and technology in general, consumers still develop foodborne illnesses, and the consequences can be frightening,” says Paul Medeiros, manager of consulting services at the Guelph Food Technology Centre. “The Canadian Food Inspection Agency estimates that 8.5 million Canadians contract foodborne illnesses every year, with 40,000 of them requiring hospitalization. The World Health Organization estimates that in the U.S. disease caused by the major pathogens costs up to US\$35 billion annually in medical bills and lost productivity. It’s essential that everyone in the food industry, including packaging converters, work together to prevent foodborne illnesses.”

HACCP (Hazard Analysis and Critical Control Points) is the internationally recognized baseline for managing food-safety risk – so much so that the forthcoming ISO 22000 is firmly rooted in HACCP. The principle of HACCP is simple: first, put Prerequisite Programs (also known as GMPs, GOPs and GAPs) into place to ensure an effective foundation for safe processing; then, determine what in the process could go wrong and put safeguards into place to prevent those problems, and catch and correct them if they do occur.

But how does packaging fit into this? More closely than one might at first think.

Establishing an effective HACCP plan requires, first and foremost, a paradigm shift in the culture at all levels of a company. “People are the essential foundation of effective HACCP,” says Medeiros.

“Buy-in from senior management is vital, but so too is the involvement of all levels of employees, since they are the ones who know the processes, environment and equipment. They have invaluable input and it is on their shoulders that the day-to-day success of the program will rest. Choosing the right people from across the company to serve on the HACCP Team and ensuring that HACCP becomes the daily



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Assuming all Prerequisite Programs are in place and functioning well, the next step is to conduct a Hazard Analysis to determine what problems could arise. For example, applying labels that are missing crucial allergen ingredient information or do not show storage instructions (such as “Refrigerate after opening”) could be a hazard. So too could use of non-food-grade resin, migration of inks or adhesives, or improper use of solvents.

In addition to knowing what can go wrong, you need to know where. Establishing Critical Control Points (CCPs) requires mapping the process and determining which hazards have already been addressed by prerequisite programs. Those that have not must then have critical limits established, so that operators know when a deviation has occurred. Monitoring procedures, reliably calibrated equipment and committed employees

are essential in catching those deviations. Likewise, regular verification by someone other than the operator, usually a quality assurance manager or a supervisor, keeps the system strong.

The benefits for packaging converters who implement HACCP are considerable. “Apart from the food safety benefits, HACCP helps to reduce costs by reducing customer complaints, recalls and rework,” explains Medeiros. “HACCP is also fast becoming a prerequisite for packaging manufacturers who want to do business with large food service and food manufacturing companies. And since HACCP also helps to level the international playing field, it could be an enormous asset in international trade.”

As more and more companies begin to see the value of integrating food safety and quality systems throughout the value chain, more suppliers are being required by their customers to have appropriate, verified and even certified programs in place. As essential suppliers to the food industry, packaging manufacturers are rising to the challenge.

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