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MANY FOOD PRODUCERS AND RETAILERS MAY NOT BE TAKING ENOUGH DUE DILIGENCE IN AUDITING PACKAGING SUPPLIERS

Despite the fact that there are numerous manufacturing processes used in packaging production, many user firms believe “one general standard fits all” when it comes to implementing a food safety standard for packaging materials.

However, each manufacturing process has its own unique issues when it comes to understanding the necessary science in developing a HACCP-based food safety standard to eliminate risks. Therefore, a food safety standard must be based on the packaging science tailored to the individual manufacturing process.

That was the conclusion of a 120 plus person steering committee in the development of the PAC Packaging Consortium’s initial HACCP-based PACsecure food safety standard for individual materials in 2005. (NOTE - This standard was the forerunner to the IFS PACsecure food safety standard for individual packaging materials which were recently approved by the Global Food Safety Initiative of Paris).

The committee consisted of major North American food companies such as Kraft Foods Global, Nestle Canada, Coca-Cola, and General Mills; packaging converters such as Alcan Packaging, Ball Packaging, Silgan Plastics, Owens – Illinois and Tetra Pak, plus suppliers of plastic resins, paper, metal and glass as well as suppliers of inks, dyes, adhesives and government food agencies.

Most interestingly, many of the food producers on the committee initially tried to adapt a food-based standard to the packaging processes. It didn’t work due to the complexities and science of packaging.

NOT ALL PACKAGERS UNDERSTAND COMPLEXITIES

There are 24 common manufacturing processes used in producing packaging materials. Six are used in the production of flexible plastics, 3 for rigid plastics, 3 for paper, 11 for metal containers and one for glass. Composite packages are based on the above processes.

In fact, many individual packaging producers were not aware of all of the complexities related to their specific manufacturing process. Even competitors, using the same materials experienced different issues.

If some packagers are not aware of all of the complexities, then how can an auditor from a food company know the right questions to ask unless they have a comprehensive understanding about each process. Most do not and are dependent on the packager for this type of information.

In the production of flexible plastics, for example, one of the six processes involves extrusion. Within this category alone you can be working with polyethylene, polypropylene, polyester, nylon, PVC, VOH and so on.

Each of these in turn, uses a multitude of additives and other ingredients related to antiblock, antifog, antistatic, colorants, shelf-life additives, UV inhibitors, and antioxidants applications. Add to this, processing aids such as extruder purging agents, masking tape, silicone, solvents for cleaning, conditioned air.

Then there are the in-plant requirements for cleaning materials, pesticides, water treatment, maintenance materials, testing chemicals, and coolants. On top of this are the applications of numerous types of labels and adhesives, inks and dyes. The list goes on covering hundreds of combinations of the above.

Then there are questions about the migration rates of these materials and chemicals and how they interact under different conditions, and how all of these relate to biological, chemical and physical hazards.

TAILORED TO INDIVIDUAL PROCESSES

Unlike some packaging standards, which were based on the principle that one size fits all, the IFS PACsecue steering committee developed generic HACCP-based manuals plus individual workbooks for each of the 24 common manufacturing processes used in the manufacture of paper, flexible plastics, rigid plastics, metal, glass. Composite packaging materials are based on the above.

In effect, it takes the standard “down from the 60,000 foot level to the shop floor”, better allowing individual firms to use a science and risk-based approach in developing their individual HACCP program.

The workbook is basically an implementation tool to better help identify the chemical, biological and physical implications and controls of the material, chemical and process used in the manufacture of packaging.

It is designed to help control the conditions of the premises (inside and outside a plant), transportation and storage, sanitation and pest control, equipment, personnel – as well as terrorism and security concerns, recall and traceability.

It also provides critical point determination, process flow diagrams, as well as examples of how to fill out all forms. It is designed to help both the individual packaging organization, auditors to better identify any issue related to the individual process.

As important as having a good grasp of the science and risk of packaging materials, the key to success is a firm's prerequisite program or good manufacturing practices.

In addition, the IFS PACsecure team is working on another good manufacturing practices tool that will identify acceptable limits, monitoring procedures, deviation procedures, verification procedures and records for all materials, chemicals, processes and allergens.

This will further strengthen the knowledge base of both the individual firm as well as auditors from food processors and retailers and for independent third party organizations auditing to Global Food Safety Initiative.

PAC, through the IFS PACsecure team will be hosting seminars and plant implementation training sessions this year throughout North America. Similar training will take place in South America and Europe. Similar sessions are being planned include to update the industry about international regulations covering migration and other issues.

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