



Food Safety Goes Global

Industry is
uniting
behind a new
international
standard

Risks arising from an improperly designed, implemented, and maintained food safety system can have financially crippling effects, from brand damage, decreased consumer confidence, product recalls, illness, death, and legal ramifications. And, with globalization and an increase in supplies from emerging countries, the likelihood of these risks grows and the processes to manage them effectively become more complex. An additional element in this struggle is the varying acceptance of food safety standards and certification, which vary from market to market. In an ideal world, everyone would accept one food safety certificate. Unfortunately, the multitude of methods available around the world presents a bewildering array of options that could potentially distract from their core objective: to improve food safety.

Consequently, there has been a growing interest in an independently verified, process-based, global food safety management standard. Many of the early schemes and standards developed were either regionally specific or only considered food safety risks within certain portions of the food sector and its supply

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chain. But the latest development, a harmonized scheme through the International Organization for Standardization (ISO) 22000 and PAS 220, will deliver substantial benefits, not only to consumers, but also to food manufacturers, their supply chains, and retailers alike.

A BRIEF HISTORY

In 2005, the ISO published ISO 22000, the first globally recognized food safety management systems standard that would consider food safety risks and impacts across the entire food supply chain. Naturally, this was hailed as a great step forward.

Following the publication of ISO 22000, however, food safety specialists from the food manufacturing sector found that the prerequisite programs (PRPs) of the ISO 22000 standard were not prescriptive enough and did not fulfill the expectations and requirements of food manufacturing stakeholders in particular.

In an effort to harmonize the prerequisite programs, realize further acceptance of ISO 22000, and fulfill additional expectations and requirements of food manufacturing stakeholders, the Confederation of the Food and Drink Industries (CIAA) of the European Union sponsored the development of PRPs that would take into account the specific requirements of the manufacturing stakeholders. The resulting PRPs formed the basis of a new publicly available specification (PAS), 220:2008, published in October 2008 by the British Standards Institution (BSI).

Although the key elements of ISO 22000 include interactive communication, system management, PRPs, and HACCP (hazard analysis and critical control point) principles, sub-clause 7.2.3 of ISO 22000, which lists the areas the organization should consider in developing the PRPs, does not detail the specific requirements sufficiently.

To ensure the critical components of PRPs for food manufacturing processes would be specifically defined and that aspects considered important in controlling hazards would be included within the manufacturing process, drafting of the PRPs was undertaken by representatives from some of the world's major food companies.

These included Kraft, Danone, Nestle, Unilever, General Mills, and McDonald's. The companies worked with experts from the United Kingdom's Food and Drink Federation and the CIAA and received input from a wide range of manufacturers' representatives, retailers, and certification bodies, including Lloyd's Register Quality Assurance (LRQA) to draft the PRPs. This cooperative effort resulted in PAS 220:2008, a specification that is applicable to all manufacturing and food handling organizations, regardless of size or complexity.

A UNIQUE STANDARD

According to Steve Mould, technical author of PAS 220 and worldwide quality chain management systems program manager at Kraft Foods, PAS 220 provides a common set of PRPs that can be used by any food manufacturer wanting to establish an ISO 22000 certified food safety management system. "What sets this standard apart from others is the wide consultation and public reviews that were conducted by BSI during its development," he said. "This is a standard that the industry has created by working together."

PAS 220 details the PRPs used by food and beverage manufacturers and is intended to be used in conjunction with ISO 22000. Its focus is to ensure that processes are in place to minimize, mitigate, or eliminate potential food safety hazards from affecting the products, including product contamination, food safety hazard levels, and the product processing environment.

PAS 220 addresses concerns that existed with ISO 22000 and is designed to bridge the gap between ISO 22000 and the Global Food Safety Initiative (GFSI) requirements. GFSI was launched in 2000 with the following mission: "Continuous improvement in food safety management systems to ensure confidence in the delivery of safe food to consumers."

Covering important aspects of food safety that are often overlooked in the food manufacturing sector, such as warehouse requirements, rework, food defense, biovigilance, and bioterrorism, PAS 220 will substantially strengthen ISO 22000 and enhance initiatives to harmonize global food safety standards.

PAS 220 is made up of the core requirements specified in ISO 22000 under sub-clause 7.2.3, with additional requirements that are considered relevant to the food manufacturing process (for a brief summary of these requirements, see "The PAS 220 Plan," p. 3)

THE BENEFITS

In December 2008, the Foundation for Food Safety Certification announced its plans to develop the ISO 22000 and PAS 220 certification scheme for food safety systems of food manufacturers. The CIAA supports this development, and the scheme has been submitted to the GFSI to be benchmarked and approved.

"The ISO 22000/PAS 220 scheme marks a very significant step forward for all food processors," said Geoff Thompson, chair of the CIAA Food and Consumer Policy Committee. "Both large and small manufacturers and retailers now have the opportunity to unite under a commonly agreed set of prerequisite programs for the international control of food safety hazards."

Some advantages of the standard include reduced costs from waste reduction, fewer product failures, and better traceability throughout the supply chain (embodying and maintaining the Codex Alimentarius HACCP), as well as seamless integration with other standards such as ISO 9001, ISO 14001, and OHSAS 18001. In addition, ISO 22000 with PAS 220 can be used globally to benchmark not only organizations but also different facilities within international companies.

According to the Foundation for Food Safety Certification, its objectives are to facilitate a certification scheme that ensures high quality food safety audits in the whole food supply chain and to achieve harmonization in food safety standards and audits. Due to the fact that the combination of ISO 22000 and the PAS 220 is very similar to the foundation's GFSI HACCP approved standard, they believe it is a logical next step to facilitate this harmonized scheme for food processors.

ADOPTING ISO 22000 AND PAS 220

In light of the many food safety schemes that already exist, some organizations may be hesitant to adopt a new standard. The good news for these companies is that any organization with an existing program based on the HACCP principles of Codex Alimentar-



The PAS 220 Plan

The following is a brief summary of additional requirements considered important to the food manufacturing process. More details are available at www.lrqausa.com/food.

1. The scope? Applicable to all food manufacturing organizations.
2. Normative reference identifies the reference materials.
3. Nineteen terms and definitions to compliment the 82 found in ISO 9001 and 17 listed in ISO 22000.
4. The construction and layout of buildings for contamination control and prevention.
5. The layout of premises and work-space.
6. Utilities (including air, water, and energy) covering water quality, approved chemicals, ventilation.
7. Waste disposal, including containers for waste or hazardous substances, waste management, drains, and drainage.
8. Equipment suitability, cleaning, and maintenance, specifying that equipment should be made of material inert to the food being processed.
9. The management of purchased materials, covering the selection of suppliers and the handling of received goods.
10. Physical, microbiological, and allergen contamination, which is covered in the section dealing with measures for prevention of cross contamination.
11. Cleaning and sanitizing.
12. Pest control.
13. Personnel hygiene and employee facilities, including locker facilities, toilets, staff canteens, and designated areas as well as work wear, protective clothing, health status, illness and injury, employee cleanliness, and behavior in a processing and warehousing environment.
14. Rework, including repackaging, as an integral part of the process with regard to traceability and allergen control.
15. Product recall procedures, including the requirement for a key contact list and traceability of product produced under similar conditions as the recall product.
16. Warehousing, including cleanliness, dryness, ventilation, dust, temperature control, separate areas for storage of chemicals, and designated areas for nonconforming materials, along with warehouse practices such as first in, first out/first expiry, first out and vehicle upkeep and maintenance.
17. Product information/consumer awareness, which covers how information is presented to the consumer to facilitate informed decisions.
18. Food defense, biovigilance, and bioterrorism, including access control and protective measures to guard against acts of terrorism, tampering, and sabotage.

ius will probably have most of the elements of ISO 22000 and PAS 220. There is no need to start from scratch, because the transition can be made by building on the existing platform.

A study conducted by Cargill Inc., an international company

HACCP in the Codex Alimentarius. The study found that most audit standards/programs/schemes meet more than 90% of the requirements for PRP and HACCP.

A gap analysis conducted by a reputable certification body will assist in identifying the areas that require further attention in order to meet the requirements of the food safety management system.

In 2007, GFSI issued over 30,000 food safety certificates under GFSI recognized schemes. This number represented a 50% increase over 2006 levels, and the global adoption of ISO 22000 is set to increase food safety even more dramatically. It is clear that the food and beverage industry is making great progress in the pursuit of its objective to deliver good quality, safe food through the global harmonization of food safety management systems. ■

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that provides food, agricultural, and risk-management products and services, compared the elements found in the different audit standards/programs/schemes with 37 key criteria for PRP and

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WHAT DOES YOUR FOOD SAFETY ASSURANCE PROGRAM LOOK LIKE?

Is it thorough and robust?

Does it accurately assess risks?

Is it independently verified by trusted, impartial experts?

ASSESSMENT • CERTIFICATION • VERIFICATION • CUSTOMIZED ASSURANCE • TRAINING

In a time when food safety scares and product recalls are apart of everyday headlines, your business must be able to answer all of these critical questions as if they're being asked directly by your consumers.

Today, it's not just a matter of if you have food safety processes in place, but whether they're being verified by robust, trusted, impartial industry experts who are able to work across your supply chain to identify the most critical risks you face and work with you to assure you're taking the steps necessary to mitigate these risks.

So, what does your Food Safety Assurance Program look like? If you're not confident, how can your consumers be?

It's time to talk to LRQA. Recognized as a contributor to the development of food safety standards across the industry – including ISO 22000, PAS 220 and HACCP – LRQA provides its clients with global assurance services, over 20 years of proven food industry experience, and confidence in our ability to help you deliver on your promises, protect your brand and ultimately protect your consumers.

Over half of the world's top consumer food companies choose LRQA. Shouldn't you?

Contact LRQA at inquiries-usa@lrqa.com or visit us online at www.lrqausa.com/food

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