NOON INTERNATIONAL

THE Intelligent Food REPORT

NAVIGATING THE FOOD SAFETY MAZE

Unification of global food safety and quality management standards has become a major international issue in the last decade. There are so many food safety standards and audit choices that finding the right one can be difficult and understanding the differences between them is often even more confusing.

This report seeks to give perspective on contemporary trends in food safety through a brief discussion of a few popular auditing choices. In addition to touching on current auditing choices, it is the goal of this report to give an idea of where food safety might be headed in the future.

It is important that everyone in the food chain understand how standards and benchmarks relate to form parameters by which specific audit choices are built. By understanding science-based quality management standards, buyers can evaluate auditing choices and position themselves to deliver the safest product possible to their customers.

Quality Management Standards

HACCP "Hazard Analysis and Critical Control Points"

HACCP, which stands for "Hazard Analysis Critical Control Points", is a scientific and systematic tool which focuses on hazard prevention during the manufacturing process rather than prevention solely through end product testing. HACCP identifies manufacturing steps which can eliminate, or severely reduce, health and safety risks associated with food processing. The ultimate goal of HACCP is to regulate and record these manufacturing steps, or critical control points, in a manner which documents their consistent application. All audit choices reviewed in this report use HACCP as a base from which to analyze food safety systems in manufacturing facilities.

ISO "International Organization for Standardization"

The International Organization for Standardization is a non-governmental organization in Geneva, Switzerland whose goal is to form globally accepted commercial and industrial standards.

For the interests of quality assurance and food safety, the most expansive ISO standard is called the ISO 22000 standard. The ISO 22000 standard was designed in response to the increasingly global nature of ingredient sourcing in today's food industry. ISO 22000 is a standard, which includes the principles of HACCP and is designed to encourage all participants in the food chain to implement a food safety system.

As of June 2008 only 22 ISO 22000 certificates had been issued on the North American continent. North America has just 1.9% of all ISO 22000 certificates issued worldwide and the least number of certificates issued on any continent in the world. Europe and East Asia lead the world in the amount of certificates issued with Europe having 661 certificates and East Asia having 232 certificates, 57.4% and 20.1% of certificates issued worldwide respectively.

It is important to realize that ISO 22000 is not officially recognized by the Global Food Safety Initiative (GFSI) as a benchmarked audit choice. This is due to a lack of prerequisite programs (PRP) as they are known in the food safety industry. PRP's are sanitation programs that define every aspect of production from individual employee sanitation to the layout of the entire manufacturing facility. The lack of PRP's in the original ISO 22000 document has been addressed by the addition of the PAS (Publicly Available Specifications) 220 document, which defines acceptable prerequisite programs. The ISO 22000 food safety standard, even with the PAS 220 document, is still not recognized by the GFSI.

Benchmarks

GFSI "Global Food Safety Initiative"

The Global Food Safety Initiative was created in the year 2000 in response to food safety scares and the global nature of food product sourcing. The GFSI seeks to harmonize global food safety standards and choices through a process called benchmarking. Benchmarking is a process by which global food safety business and production standards can be compared against what is commonly accepted as a best practice in the food industry.

The GFSI vision is "once certified, accepted everywhere", and this vision is on its way to becoming a reality with food retail giants such as Wal-Mart in the United States, Tesco in the UK, ICA in Nordic countries, and Delhaize in mainland Europe, among others, only accepting product from facilities audited by at least one GFSI certified audit choice. Currently the audit schemes accepted by GFSI are BRC, Dutch HACCP, FSSC 22000, Global Red Meat Standard, International Food Standard, and SQF 2000 Level 2.

Audit Choices

AIB "American Institute of Baking"

The American Institute of Baking has come under fire in recent years for a widely reported salmonella outbreak from Peanut Corporation of America plant in Georgia inspected by AIB. The story was most notably reported in The New York Times in response to 9 deaths and 22,500 illnesses in the United States thought to have been caused by unsanitary conditions at the Georgia plant. While AIB takes some responsibility for the outbreak, in their official response on the internet titled, "Setting the Record Straight", AIB places as much blame on the Georgia Department of Agriculture's auditing practices.

More important than their press release is the fact the AIB has made great strides to place less emphasis on their traditional physical inspection by getting AIB inspectors certified to do audits recognized by the GFSI. In addition to the AIB physical audit, AIB inspectors can now perform the GFSI certified audits, SQF, BRC, and ISO 22000.

It is important to clarify the difference between the AIB physical inspection and GFSI recognized audits performed by AIB. While GFSI recognized audits include a very focused review of documentation, the AIB physical inspection focuses on the manufacturing facility, it's policies, operations, the physical condition of grounds, buildings, production and the storage areas in order to make certain that in every step of the process the food remains safe. The AIB audit does not "certify" a company, it gives the manufacturer a certificate of achievement which is based on the inspection that was performed on that day. The certificate of achievement does not have an expiration date.

BRC "British Retail Consortium"

The British Retail Consortium audit scheme is recognized by the GFSI. While it is most commonly used by manufacturers of retail products exported to the UK and Europe, BRC is fast becoming an increasingly popular audit choice for the global market. In March 2009 the BRC began promotion of it's certification process in the North American Market and to date the North American continent has just over 400 facilities BRC certified.

BRC is the largest retail trading association in the UK. With its recognition by GFSI, and its clear interest in developing a strong presence outside of the UK, the BRC audit scheme is poised to grow its global popularity as a thorough method by which to verify the manufacture and export of safe food products around the world.

The BRC Global Standard for Food Safety is build on a comprehensive and focused audit on food safety, legality and quality, clear and detailed requirements based on HACCP principles which are supported by a documented system, and a standard reporting format providing information on how manufacturers meet the requirements of the BRC standards. The BRC standards have continued to evolve with input from food manufacturers, certification bodies, retailers and caterers.

FSSC 22000 "Foundation for Food Safety Certification"

The Foundation for Food Safety Certification created the FSSC 22000 audit choice by combining the principles of ISO 22000 and PAS 220. The FSSC document was only recently approved by the GFSI and is the newest addition to audit choices included in this report. FSSC 22000 achieves an, "international, auditable standard that specifies the requirements for food safety management systems by incorporating the elements of Good Manufacturing Practices (GMP) and Hazard Analysis Critical Control Points (HACCP) together with a comprehensive management system."

SQF "Safe Quality Food"

The "Safe Quality Food" 1000 and 2000 standards were implemented in 1995, and the "2000 Level 2 Standard" was eventually recognized by the GFSI. SQF 1000 certification applies to primary producers and the SQF 2000 certification applies to manufacturing and distribution. The SQF brief guidance document asserts the audit choice as "the only certification system recognized by the Global Food Safety Initiative (GFSI) that links primary production certification to food manufacturing, distribution, and agent/broker management certification."

The SQF 2000 audit choice follows three levels of certification, with Level 3 required before a manufacturer can use the SQF 1000 or 2000 trademark. Level 1 verifies "Food Safety Fundamentals", Level 2 verifies "Certified HACCP Food Safety Plans", Level 3 verifies "Comprehensive Quality Management Systems Development" and is the final level in the SQF certification process. As mentioned before only SQF 2000 level 2 is recognized by the GFSI.

If level 3 is achieved and a SQF certificate is issued, level 2 has also been achieved and the certification is therefore recognized by the GFSI.

United States Governmental Concerns

--H.R. 2749--

Recently in the United States a food safety bill was passed by the House of Representatives and is now being debated and amended in the United States Senate. If passed, the bill would strengthen the regulatory power of the FDA to inspect food processing facilities according to a three level risk based ranking system, with high risk facilities such as seafood manufacturers inspected more frequently than agricultural sectors with less food safety risk. The standards by which the FDA will inspect have yet to be determined in the bill passed by the House of Representatives. H.R. 2749 also has a section giving the FDA power to regulate food imported from abroad to verify that manufacturers in foreign countries are also following appropriate food safety standards, standards which have yet to be defined.

Common Questions

What audit choice should be used?

There is no clear-cut answer for this question. Comparing the merits of different auditing choices is like comparing the merits of any different product brands; which one is best and why? Audit choice is largely a function of the buyer's preference and geographic location, rather than a function of the actual scientific merits of each auditing choice as determined by the manufacturer.

It is worth pointing out that many authorities believe there is not one audit better than another. In a recent article for Food Safety Magazine, Richard Stier reported "If one were to examine all of the audits that are available to the industry, the likely conclusion would be that they are largely the same…Jennifer Robinson of Cargill reported that her company had evaluated different audit systems and found that over 90% of the components were the same for each".

Manufacturers therefore must perform and meet audit requirements specified by their particular customers, which in some cases could lead to several different audits at the same plant and often presents a significant financial burden for the processor. This makes the need for an all-encompassing global food safety standardized audit even more important.

How good is your audit?

There are many different and often conflicting answers to this question. One perspective is that the current third party auditing system, no matter the choice, is inefficient and ineffective. As Mansour Samadpour, a Seattle based food safety consultant put it: "The contributions of third-party audits to food safety is the same as the contribution of mail-order diploma mills to education."

However, large-scale buyers see third part auditing as an essential part of maintaining reliability and accountability in food safety. This is evidenced by the fact that major retail buyers throughout the world now insist on different kinds of third party audits regardless of cost. Relating audit cost to validity of an audit is subjective and no audit can be guaranteed better than another based solely on cost.

Where is food safety going in the future?

More than ever, food safety is now a global concern. With mega retail powerhouses such as Wal-Mart and Tesco setting the standards by accepting only GFSI approved audit schemes, and governments and consumers frustrated and demanding more control in the area of safe food, it seems only a matter of time before some valid conclusion is reached and global harmony is achieved with regard to food safety standards and accepted auditing practices.

The benefits of clearly defined food safety standards and audits with global acceptance are many. Rather than a manufacturing facility being required to perform several different audits dependent on the individual customer requirement, the development of an all-encompassing global standard will reduce confusion and cost not only at manufacturing level but also throughout the food chain.

While we have focused mainly on food safety at plant level in this report, it is vital to consider the standardization of food safety throughout distribution as well…throughout the entire cold chain. If there is a break or weak link in the chain then all previous efforts and standards to attain excellence could be wasted.

Navigating the food safety maze can be confusing and costly…yet the average consumer has no idea of all that goes on behind the scenes to keep their food supply safe. Within our industry we must work diligently to streamline our systems in the area of food safety while at the same time continuing to cooperate on a global level to upgrade food safety standards and audit systems that will benefit all.

SQF (How-to guide for manufacturers, distributors and brokers**)**
http://www.sqfi.com/SQF_2000_Guide.pdf

SQF (A basic guide**)**

http://www.sqfi.com/SQF_Brief_Guide.pdf

Samadpour (seattle based consultant) powerpoint presentation on food safety(meat focus)
www.marlerclark.com/pp/Session%202%20-%20**Samadpour**.ppt

Food Safety Magazine(November Cover Article)
http://foodsafetymagazine.com/article.asp?id=3383&sub=sub1

New York Times "Food Problems Elude Private Inspectors"
http://www.nytimes.com/2009/03/06/business/06food.html?pagewanted=1&_r=1

New York Times "Food Safety"
http://topics.nytimes.com/top/reference/timestopics/subjects/f/food_safety/index.html?scp=1-spot&sq=food%20safety&st=Search

ISO 22000 website(a business setup)
http://www.22000-tools.com/what-is-iso-22000.html

Global Food Safety Initiative
http://www.myciesnet.com/gfsijoomla/gfsifiles/GFSI_Guidance_Document_5th%20Edition%20_September%202007.pdf (GFSI Guidance Document)

AIB
https://www.aibonline.org/auditservices/SettingTheRecordStraight8x11.pdf (refute to peanut butter salmonella outbreak)

ISO
http://www.iso.org/iso/about.htm (describes what ISO actually is)

FSSC 22000
http://www.ifsqn.com/articles_detail.php?newsdesk_id=765&t=Understanding+the+FSSC+22000+Food+Standard

ISO 22000 (article outlining the idea behind ISO 22000)
http://www.ifsqn.com/articles_detail.php?newsdesk_id=249&t=BottomLine+Benefits+of+ISO+22000

AIB
https://www.aibonline.org/press/ANSI.html (other schemes AIB can audit for)

BRC

http://www.brc.org.uk/details04.asp?id=1529 (BRC in North America)

HR 2749 (text of full bill**)**
http://www.govtrack.us/congress/billtext.xpd?bill=h111-2749

HR 2749(summary of bill**)**
http://www.govtrack.us/congress/bill.xpd?bill=h111-2749&tab=summary

ISO 22000 Special Report
http://www.iso.org/iso/iso22000_ims_08-3.pdf

Center for Science in the Public Interest(top ten most dangerous FDA regulated foods)
http://cspinet.org/new/pdf/cspi_top_10_fda.pdf