The ever changing world of Standards
Presented by: Avi Maltz
Avi Maltz

- Lead Auditor – Standards Institution Israel: 6 years experience
- Specialising in: Food, Packaging, Chemical Industries
- Food Technologist with 14 years experience in the Food industry in various capacities – Q.A manager, Food Technologist, Production
The world of Standardisation

ISO 9001       HACCP

GMP

ISO 22,000       BRC-Food       BRC-IoP

FSSC 22,000 (PAS 220)
A. Past/Present

1. **ISO 9001:2008** - quality management system. Focuses on the quality of the management process to manufacture products and or services, and to increase their effectivity.

2. **HACCP** - safety management for food manufacturers and service providers in the food field in accordance with the Codex Alimentarius
1. ISO 9001:2008

Brief History

- 1987 Version
- 1994 Version
- 2000 Version

The Headquarter of ISO Organisation is located in Geneva (Switzerland)

http://www.iso.org/iso/home.html
ISO 9001 is a **generic** standard. **Generic** means that the same standards can be applied:

- **to any organization**, large or small, whatever its product or service,
- **in any sector** of activity, and
- **whether it is** a business enterprise, a public administration, or a government department.
Processes, not products

ISO 9001 concerns the way an organization goes about its work.
It is not a product standard.
It is not a service standard.
It is a process standard.
Can be used by product manufacturers and service providers.
6.3 Infrastructure

The organization shall determine, provide and maintain the infrastructure needed to achieve conformity to product requirements. Infrastructure includes, as applicable,

a) buildings, workspace and associated utilities,

b) process equipment (both hardware and software), and

c) supporting services (such as transport, communication or information systems.)
1. ISO 9001:2008

In Israel

As part of approving suppliers and as a requirement for tenders the Israel Ministry of Defense initiated and continues to require a valid ISO certificate and the last audit report.
Benefits of Quality Management

- International practices for quality management.
- Common language for dealing with customers and suppliers worldwide in B2B (Business to Business).
- Increase efficiency and effectiveness by early recognising problems.
- Model for continual improvement.
- Model for satisfying customers and other stakeholders.
- Build quality into products and services from design onwards.
- Address environmental concerns of customers and public, and comply with government regulations.
- Integrate with global economy.
- Optimizing processes for production and information.
2. HACCP

- Hazard
  - The best food safety management tool available.

- Analysis
  - Systematic and preventative approach to food safety management

- Critical
  - Internationally recognized by the world community.

- Control
  - Based on Seven principles addressing biological, chemical and physical hazards

- Point
  - Anticipates and prevents hazards rather than relying on finished product inspection.

http://www.codexalimentarius.org/
GENERALIZED HACCP PLANS
designed for a specific product or product category that can be used as an example or guideline for developing a plant specific HACCP plan.
History

1959

+ Pillsbury

SPACe FOOD
Created in 1963 under the joint FAO / WHO Food Standards Programme: includes 162 member countries (represents 97% of world population)

sets the food standards, guidelines and codes of practice used by WTO

Codex has embraced the HACCP concept

Codex 20th session, 1993
Why HACCP?

- More efficient and effective government oversight
- Science Risk-based food safety system
- Share Industry/government responsibility for food safety
- Maintain access to global and domestic markets
- Improves industry efficiencies and provides due diligence
What is driving food safety?

- **Global market place**
  - rapid and widespread distribution of foods
  - more purchase decisions
  - importing countries demand the same level of food safety accountability

- **Research and changes in technology**

- **Consumers**
  - more concerned and aware about the quality and safety of the foods they eat
  - highly publicized food safety scares: media coverage is continuous and instantaneous
NORTH AMERICAN FREE TRADE AGREEMENT

SANITARY AND PHYTOSANITARY (SPS) AGREEMENT

• Ratified in 1994 between Canada, United States and Mexico.
• Regulations must be based on appropriate science and risk.
• NAFTA encourages countries to use Codex standards when developing their SPS agreements.
The key principle for imported foodstuffs and animal feed is that they must meet health requirements at least equivalent to those set by the Community for its own production.
**Australia New Zealand Food Standards Code (Dec 20, 2002)**

**Chapter 1** – Food Standards applying to all food.

**Chapter 2** – Standards affecting particular classes of food.

**Chapter 3** – Food hygiene issues in Australia

- **Standard 3.1.1 Interpretation and Application**
  - defines safe food and various food standards

- **Standard 3.2.1 Food Safety Programs - implementation of HACCP**
HACCP introduced on a voluntary basis in 1996 for Milk, Dairy Products and Meat Products.

Approval process incorporated into Article 7-3 of the Food Sanitation Law.

Training programs provided to industry

Retail demands from suppliers to have HACCP in place is increasing.
Jordan

- Jordan – member of international standard setting bodies (Codex Alimentarius, and ISO).
- Food control systems based on risk management to monitor and control the safety of domestically produced and imported food.
- Established a food and drug authority, Law 31/2003.
- Acting on assuring well-functioning foodborne surveillance systems and reporting mechanisms.
- Embarked on unifying food safety activities from farm to fork.
Companies wishing to label their products with the GMP (good manufacturing practice) are required to attain HACCP and ISO certification.
Food supplement and “Gluten free” producers are required to label their products with the GMP (good manufacturing practice) symbol.

Companies exporting products from an animal source (fish, meat etc.) are required to be HACCP veterinary certified and inspected by the veterinary services.
6.3.1 **General**: Pests pose a major threat to the safety and suitability of food.

6.3.2 **Preventing access**: Buildings should be kept in good repair and condition to prevent pest access and to eliminate potential breeding sites.

6.3.3 **Harbourage and Infestation**: Potential food sources should be stored in pest-proof containers and/or stacked above the ground and away from walls.
6.3.4 Monitoring and detection: Establishments and surrounding areas should be regularly examined for evidence of infestation.

6.3.5 Preventing access: Treatment with chemical, physical or biological agents should be carried out without posing a threat to the safety or suitability of food.
Factories producing Products, derived from an animal source, which do not undergo thermal treatment (fish, meat) are informed by the Health department that they are required to be HACCP certified as in order to obtain a health license.
Benefits:

- Addresses chemical, physical and biological, especially microbiological, hazards.
- Improves management and staff commitment to quality and food safety.
- Decreases business risk (legal and insurance costs).
- Company HACCP + Inspection Oversight = Safer Food.
- Endorsed by a variety of stakeholders.
Stakeholders

- World Health Organization/United Nations (Codex)
- Canada
- Australia/New Zealand
- European Union
- Fast Food Chains
- Customers
B. Present

1. **ISO 22,000**- Food Safety Management System (FSMS) that uses a management system approach and HACCP requirements. The goal is to provide one internationally recognized standard for a food safety management system that can be applied to any organization in the food chain.
History

- Drafting initiated: Summer 2001
- Committee Draft: March 2003
- Draft International Standard: March 2004
- Final Draft International Standard: Spring 2005
- Publication ISO 22000: End 2005 (1.sep.05)
Reasons for ISO 22000

- Increasing number of national regulations and controls relating to food safety
- Different requirements depending on the country and customer
- Retailers set a variety of specific criteria (BRC, IFS,...)
- ISO 22000 simplifies the process
- Generic + applicable to all organizations in the food chain regardless of size and complexity
What does ISO 22000 do?

ISO 22000 specifies the characteristics of a management system designed to

- carry out the hazard analysis,
- design the HACCP plan,
- identify the prerequisite programmes (PRP),
- select the operational prerequisite programmes
Essential: Ensure that the Relevant Food Safety Hazards are identified and adequately controlled at each step within the food chain.
Scope – the whole food chain

Regulatory authorities

Crop producers
Feed producers
Primary food producers
Food producers
2nd food processors
Wholesalers
Retailers
Consumers

Producers of pesticides, fertilizers, and veterinary drugs
Food chain for the production of ingredients and additives
Transport and storage operators
Producers of equipment
Producers of cleaning and sanitizing agents
Producers of packaging materials
Service providers
Food service operators/caterers
Definition of PRP

PRP - prerequisite program

Basic conditions and activities that are necessary to maintain a hygienic environment throughout the food chain suitable for the production, handling and provision of safe end products and safe food for human consumption.

The PRPs needed depend on the segment of the food chain in which the organization operates and the type of organization.
7.2.3 When selecting and establishing PRP(s), the organization shall consider and utilize appropriate information (e.g. regulations, customer requirements, recognized guidelines, Codex Alimentarius Commission (Codex) principles and codes of practices, national, international or sector standards).

NOTE Annex C gives a list of relevant Codex publications.

The organization shall consider the following when establishing these programmes:

a) construction and lay-out of buildings and associated utilities;
b) lay-out of premises, including workspace and employee facilities;
c) supplies of air, water, energy and other utilities;
d) supporting services including waste and sewage disposal;
e) suitability of equipment and its accessibility for cleaning, maintenance and preventative maintenance;
f) management of purchased materials (e.g. raw materials, ingredients, chemicals, packaging), supplies (water, air, steam, ice, etc.), disposals (e.g. waste and sewage), and handling of products (e.g. storage and transportation);
g) measures for the prevention of cross contamination;
h) cleaning and sanitizing;
i) pest control;
j) personnel hygiene;
k) other aspects as appropriate.

Verification of PRP(s) shall be planned (see 7.8) and PRP(s) shall be modified as necessary (see 7.7). Records of verifications and modifications shall be maintained.

Documents should specify how to manage PRP(s).
Verification and validation

Are we doing the right things?

Validation

Are we doing things right?

Verification

Our plans

Our activities

Our plans

Literature

Our plans
Main advantages of ISO 22000

✓ Internationally recognized.
✓ Auditable.
✓ Applicable in varied contexts.
✓ Flexible.
✓ Easily combinable with other management systems and/or with the HACCP
2. What is BRC?

BRC is the leading Trade Association representing UK and International Retailers – British Retailers consortium.

A market leading, third party certification scheme that specifies safety and quality criteria for the manufacture, packaging and storage and distribution of food and non-food products.

http://www.brc.org.uk/brc_home.asp
a. **BRC Food version 6** - The Global Standard for Food Safety has been developed to specify the safety, quality and operational criteria required to be in place within a food manufacturing organization to fulfill obligations with regard to legal compliance and protection of the consumer.
4.13.8: An in-depth, documented pest control survey shall be undertaken at a frequency based on risk, but typically quarterly, by a pest control expert to review the pest control measures in place. The timing of the survey shall be such as to allow access to equipment for inspection where a risk of stored product insect infestation exists.
4.13.9: Results of pest control inspections shall be assessed and analysed for trends on a regular basis, but as a minimum:

- in the event of an infestation
- annually.

This shall include a catch analysis from trapping devices to identify problem areas. The analysis shall be used as a basis for improving the pest control procedures.
Manufacturer benefits

- Provides a passport for International Trade
- Global exposure for brands and products
- Use of BRC Global Standards logo
- Discounted training courses and publications
BRC Certification provides a (Passport) for International Trade

EU/ UK Imports (VISA)
EU wide legislation
Onus on importer
Requirements available on http://www.food.gov.uk/imports
b. BRC Packaging version 4 - The BRC/IOP Standard applies not only to materials utilised in food packaging and filling operations, materials which are in direct contact with food products even although those very products already have a natural barrier such as boxes to contain eggs or bananas and to other products such as toiletries. The Standard is also intended to apply to consumer-disposable goods which may come into contact with food such as paper plates, disposable cutlery and cling-film.
Development of the Standard

This standard hails as a first for the packaging industry

It provides common ground on auditing

It underpins *due diligence* to users.

It brings quality and hygiene standards, and many manufacturers to new heights.

It means a single audit for packaging manufacturers
4.11.2: *The frequency of inspections shall be determined by risk assessment and shall be documented.* Where the services of a pest control contractor are employed, the service contract shall be clearly defined and reflect the activities of the site.
Benefits of the Standard

่า Acceptance of the Standard based on best practise

่า Open and transparent

่า Encourages continuous improvement

่า Cost effective, removes need for multiple customer inspection

่า Broad based standard, including; quality, hygiene, and safety

่า The standard addresses “due diligence”

่า Requirement for on-going surveillance
C. Future

**FSSC**: Foundation Food Safety Certification

- Certification of food companies (system)

BSI PAS (or ISO/TS 22002 respectively) was designed to fill in the gap of "non existing, retailer demanded, pre-defined" GMP (or PRP)
BSI PAS 220:2008

BSI: British Standard Institute
PAS: publicly available specification
Has been developed by:
Website

www.fssc22000.com

Languages:
- English
- Spanish
- French
- German

The Foundation for Food Safety Certification was founded in 2004. The Foundation developed FSSC 22000, the ISO 22000 and PAS 22000 based certification scheme for certification of food manufacturers. This development is supported by the Confederation of the Food and Drink Industries of the European Union (CIAA). The scheme is recognised by the Global Food Safety Initiative (GFSI).

For up-to-date information via e-mail please subscribe here.

News

Webinar FSSC22000 June 30, 2010
12 May 2010 - The Foundation for Food Safety Certification invites you for a Webinar about the recent developments of FSSC 22000 on June 30, 2010.

Already 26 certification bodies have a provisional license with the Foundation and are interested in becoming accredited for FSSC 22000. Also the Board of Stakeholders FSSC 22000 is formally installed and unaccredited FSSC 22000 certification audits have started.

Want to hear more about the recent developments
A wide range of manufacturers have shown interest, and some major [and international] retailers have undertaken to accept FS22000 certification

- Kraft
- Mars
- Cargill
- Coca Cola
- Nestlé
- Unilever
- Danone
Focus on chapter 7 (HACCP) of ISO 22000

PAS is applicable to all organizations, regardless of size or complexity, which are involved in the manufacturing step of the food chain and wish to implement PRP in such a way as to address the requirements specified in ISO 22000:2005, Clause 7.

No application except food

This PAS is neither designed nor intended for use in other parts of the food supply chain.

not for transport service, not for manufacturing of packaging, not for catering, not for feed!
12 Pest control

12.5 Monitoring and detection

Pest monitoring programmes shall include the placing of detectors and traps in key locations to identify pest activity. A map of detectors and traps shall be maintained. Detectors and traps shall be designed and located so as to prevent potential contamination of materials, products or facilities.

Detectors and traps shall be of robust, tamper resistant construction. They shall be appropriate for the target pest.

The detectors and traps shall be inspected at a frequency intended to identify new pest activity. The results of inspections shall be analysed to identify trends.
12 Pest control

12.6 Eradication

Eradication measures shall be put in place immediately after evidence of infestation is reported.

Pesticide use and application shall be restricted to trained operatives and shall be controlled to avoid product safety hazards.

Records of pesticide use shall be maintained to show the type, quantity and concentrations used; where, when and how applied, and the target pest.
Summary

- PAS 220 is derived from Ch.4 IFS and Ch.4 BRC
- Single certification of PAS 220 not allowed – underlying ISO 22000 obligatory
- FSSC: system approach
- For already ISO 22000 certified companies an additional „top-up“ is possible
The End ….. or is it just the beginning???

Thank you for listening!

شكرًا على حسن الاستماع