

# HACCP, key principles, role, scope and importance ...

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# What is HACCP?

- ➡ Hazard
- ➡ Analysis &
- ➡ Critical
- ➡ Control
- ➡ Point  
System
- ➡ A Proactive approach to food safety
- ➡ It identifies hazards before they arise and addresses them.
- ➡ Exhibits due diligence
- ➡ A legal requirement!!

# Significant dates in History of HACCP

1959	Developed by the Pillsbury Co (USA) for NASA (Genuine rocket science!)
1971	Concept presented to American National Conference on Food Protection
1980	WHO/ICMSF report on HACCP
1991	Codex Alimentarius Commission includes HACCP in guides
1993	Codex issues HACCP guidelines – <i>'Basic Text on Food Hygiene'</i>
1997	Codex issues revised guidelines (3 <sup>rd</sup> edition issued in 2003)
1998	FAO/WHO provides guidance for regulatory assessment of HACCP
1999	WHO publishes <i>'Strategies for implementing HACCP in small and/or less developed businesses'</i>

# Overview of regulations for food

## Regulation 178/2002/EC - Framework

### Standards

Regulation 852/2004/EC  
on the hygiene of food stuffs

Regulation 853/2004/EC laying  
down specific hygiene rules for  
on the hygiene of foodstuffs

Directive 2002/99 laying down the  
animal health rules governing the  
production, processing,  
distribution and introduction of  
products of animal origin for  
human consumption

### Controls

Regulation 882/2004/EC  
on official controls performed to ensure  
the verification of compliance with feed  
and food law, animal health and animal  
welfare rules

Regulation 854/2004/EC  
laying down specific rules for the  
organization of official controls on  
products of animal origin intended for  
human consumption

# Basic requirements

- ➔ Requirements according to Regulation 852/2004/EC  
and
- ➔ Requirements according to Regulation 853/2004/EC
- ➔ International standards

# Regulation 852/2004/EC

## ➡ Article 4 requirements

- As in Annexes, usual pre-requisites issues such as
  - Water, pest, cleaning, temperature, operational hygiene, training, maintenance etc.

## ➡ Article 5 requirements

- HACCP, analysis, limits, results, development, verifications

➡ Both these issues should be included in the overall system of internal controls

# Who is doing what

(based on the new regime)

- The Food Business Operator has the primary responsibility
  - To implement food law provision
  - To provide access and information
  - To produce healthy and safe food.
- The Competent Authority of a Member State has supervisory responsibilities
  - To verify that Food Business Operators fulfil their obligations

# Why is FBO responsible?

Interpretation – implementation

- ➡ CA not in all places at all times
- ➡ FBO knows the production process
- ➡ Responsible for “*activities under his control*”
- ➡ FBO best placed to initiate corrective action – knowledge of the process
- ➡ Food / feed is like any other product, falls within the scope of general liability – MS not allowed to exonerate food business!

# Responsibility – proc..

Interpretation – implementation

- The FBO tasks continue:
  - To ensure training for employees
  - To ensure that all requirements are met all stages of production, processing and distribution of food
  - Respect microbiological criteria
  - Maintain the cold chain as applicable
  - Sample and analyse as applicable

# Practical points

- ➡ An audit of a food plant is first and foremost a paper exercise
- ➡ Less detail, concerning rooms, equipment, technical processes etc.
- ➡ More emphasis on risk assessment, HACCP and pre-requisites

# Prerequisites

- The FBO is expected to use the HACCP principles
  - Monitor, limits, corrective action, registration and verifications
  - Have general description for every item
  - Have written procedures for tasks
  - Verify no cross contamination
- What is not documented, has not been done
  - E.g. how do you ensure?

# HACCP

## ➔ Check:

- introduction, should contain the layout of the system [Example](#)
- if signed by management
- product descriptions and flow diagrams
- analysis, how were the ccp's identified
- choose a point and check (see next slide)

# CCP - check

- Procedure for monitoring
  - Who, when (frequency), how and how registered (form, IT etc)
- Limits for the results
  - How established, relevant or not
- Corrective action procedures
  - Who, how and how registered, verification of action

# CCP – results

## ➤ Monitoring

- Check if control measure is applied in accordance with procedure (e.g. frequency)

## ➤ Limits

- Look for values outside of the limits, if possible more than one

## ➤ Corrective action

- Look for documented corrective action, was the response in accordance with procedure, was result verified etc

# Small businesses - guides

- ➡ Article 5 (5) of 852 [Guide](#)
- ➡ It is expected that industry associations produce guides – could be others
- ➡ Could be about standard
  - CCPs,
  - Procedures
  - Forms

# Overview documents

## ➡ General documentation

- Blue prints, throughputs, type of products

## ➡ Internal control system documents

- Flow diagrams
- Procedures and forms for monitoring and corrective action
- Results of monitoring and corrective action

# General documentation

## Blue prints

- General overview over whole site
- Individual processing rooms including flows for:
  - Raw material
  - Equipment
  - Staff
  - Waste
  - Final products

# General documentation

Throughput, type of products

- Seasonal – all year
- Hour, day, week and annual production
- Raw material
  - Type of animals used or ...
- Products produced, e.g.:
  - Milk, meat, processed products etc., etc.,

# Internal control system documents

## Flow diagrams

- ➔ Not mentioned in particular in Regulation 852, but could be considered an integral part of the system
- ➔ Include steps and indicate where CCPs have been identified
- ➔ NB, for each product line

# Internal control system documents

## Procedures and forms II

- ➡ Procedure must indicate:
  - How
  - By whom
  - How often
  - How to register results
- ➡ Corrective action procedures as well for all above

# Internal control system documents

## Procedures and forms III

- A form should include
  - Name and type of from – what is montored
  - Valid from date
  - Who does it
  - When, date time
  - Outcome of monitoring
  - Signature of operator (depends..)
  - Include on form critical limit for parameter

# Internal control system documents

## Procedures and forms – corrective action

- A form should provide for registration of:
  - Parameter (ccp) and product
  - Who is carrying out the action
  - Date, time
  - Nature of violation of the critical limit
  - Description of the action taken
  - Signature by the operator
  - Verification of “success”

# Internal control system documents

## Procedures and forms - verification

### ➤ For verification register:

- Who is carrying out (members of team)
- The scope of verification – whole system or only a part
- The result of elaborations, taking into account monitoring, limits and corrective actions
- Results of additional checks as applicable
- Decisions taken on changes, what was changed and how, signature of management

# Internal control system documents

## Document handling system

- A document handling system should be in place
- A list of all valid documents readily available to everybody
- Every document is identified with type of document, issue number, date of issue
- An active procedure in place to recall all invalid documents – identify as such if kept

# The overview of the system

- Could easily be done by simple mark-up language (HTML) [Example](#)
- Include an introduction and the HACCP card referring to all CCPs
  - Should also be signed by manager
  - Should be kept with the system
  - Should provide the unreserved authorisation to for quality staff to act!

# Internal control system documents

Some procedures and forms

- ➔ Water
- ➔ Pest
- ➔ Cleaning
- ➔ Temperature
- ➔ Education
- ➔ Health control
- ➔ Health mark and labelling
- ➔ Products in
- ➔ Products out
- ➔ Maintenance (buildings, equipment etc.)
- ➔ Operational hygiene
- ➔ **CCPs**
- ➔ **Internal audits**
- ➔ **Verification of the system and facilities**

# Internal control system documents

## Samples

- ➡ Use pre-requisite points since more universally used
- ➡ Create preambles for each parameter
  - The main features of system
  - Frequencies
  - Responsibilities
  - Perhaps indicate past developments

# Internal control system documents

## Individual procedure, example temperature

- ➔ System for temperature must include (example dairy):  
Measuring temperature in:
  - Raw material
  - Storage (silo)
  - Heat treatment
  - Chiller final products
  - Load out
- ➔ Procedures for these activities
- ➔ Procedure for corrective action
- ➔ Forms for the registration
- ➔ Form for corrective action

# Internal control system documents

## Individual procedure, example temperature II

### ➤ Procedures

- For measuring items see last slide (most automatic!)
- Setting limits
- Calibration
- For corrective action

### ➤ Forms

- Record calibration
- Record corrective action

# Internal control system documents

Repeat

- For all actions within the internal control system – which includes HACCP
  - Procedures for monitoring each parameter
  - Including what to record and how – forms
  - Procedure for setting limits – documented
  - Procedure for corrective action
  - Form for corrective action

# Other documents

- Any documents aimed at fulfilling the objective of Regulations 852/- and 853/2004/EC
- Taking into account the framework of Regulation 178/2002/EC
- Results of analysis of final products
  - Microbiological criteria regulation not issued yet.