



# Product Contamination Control

FSKN 8

# GFSI Basic Level

- The organization shall ensure appropriate facilities and procedures are in place to control physical, chemical, or biological contamination of product. Appropriate controls shall be in place to minimise incidence of contamination by foreign bodies.

# Presentation Outline

- Importance of Product Contamination Control
- Definitions
- Legal and Customer Requirements
- Steps Important for Preventing Contamination
- Monitoring



# Importance of Product Contamination Control

- Product contamination control is important to prevent adulteration of food products with contaminants or hazards that might injure or otherwise compromise the health of the consumer.
- Once contaminated, it may be very difficult or impossible to decontaminate food products. Prevention is key.



# Definitions

- Contaminant
  - Any biological or chemical agent, foreign matter, or other substances not intentionally added to food which may compromise food safety or suitability.
- Contamination
  - The introduction or occurrence of a contaminant in food or food environment.

# Definitions

- Hazard (Codex)
  - A biological, chemical or physical agent in, or condition of, food with the potential to cause an adverse health effect.
- Hazard (US HACCP Regulations)
  - A biological, chemical or physical agent that is reasonably likely to cause illness or injury in the absence of its control.

# Definitions

- Control Measure
  - Any action and activity that can be used to prevent or eliminate a food safety hazard or reduce it to an acceptable level.

# Legal and Customer Requirements

- Refer to national legislation and regulations concerning limits of specific contaminants.
- Note that not all potential contaminants are hazards. In fact, some regulations specify allowable levels of defects.
  - e.g. US FDA Defect Action Levels Handbook (<http://www.fda.gov/food/guidancecomplianceregulatoryinformation/guidancedocuments/sanitation/ucm056174.htm>)
- Customer requirements often are more stringent, and are specified in contracts.



# Four “P”s of Product Contamination Control

- People
- Product (Raw Materials & Packaging)
- Premises
- Pests

*(We have discussed many of these issues in other modules of this workshop)*

# Contamination Control – Personnel

- Personal hygiene – cleanliness, handwashing, etc.
- Personal behaviours – control of foreign materials (e.g. jewellery) and potential microbial contaminants.
- The most effective method of managing people with respect to the control of contamination is make them aware of the correct operation of their tasks, supervise and monitor their activities.

# Contamination Control – Raw Materials

- Incoming raw materials can be a significant source of contaminants and food hazards.
- When considering the control of product contamination in relation to raw materials, the following procedures should be in place:
  - Raw material specifications
  - Raw material inspection
  - Reject nonconforming lots of product
  - Supplier visits



# Contamination Control – Premises

- Design of facilities and equipment to minimize potential for contamination.
- Glass must be shielded
- Metal and plastics can be shed by equipment
  - controls by good design, effective preventative maintenance and repairs, and monitoring of physical hazards.

# Contamination Control – Pests

- Reduce opportunities for attraction and harborage of pests outside and inside food facilities (garbage, tall grass, openings to facility, comfortable environments within facilities, etc.)
- Effective pest monitoring and control programs.
  - Keep records to know when pest activity is greater.
  - Pest activity can be seasonal.
- Appropriate placement of pest control devices (e.g. don't place insect traps or “bug zappers” over unshielded products or food preparation areas)

# Monitoring

- Raw material specifications and actual incidence of contaminants and hazards in received materials.
- Personnel hygiene and behaviors – observe practices.
- Facility and equipment design, preventative maintenance and repairs.
- Pest control programs.
- Consumer complaint records – especially useful for physical contaminants and hazards.



# QUESTIONS?



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