



Project: Technical assistance to improve implementation of food safety standards and disease crisis preparedness

Training course: Prerequisite programs (GMP) and HACCP GMP- template for Industry

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Date:

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Pre-requisite Programmes

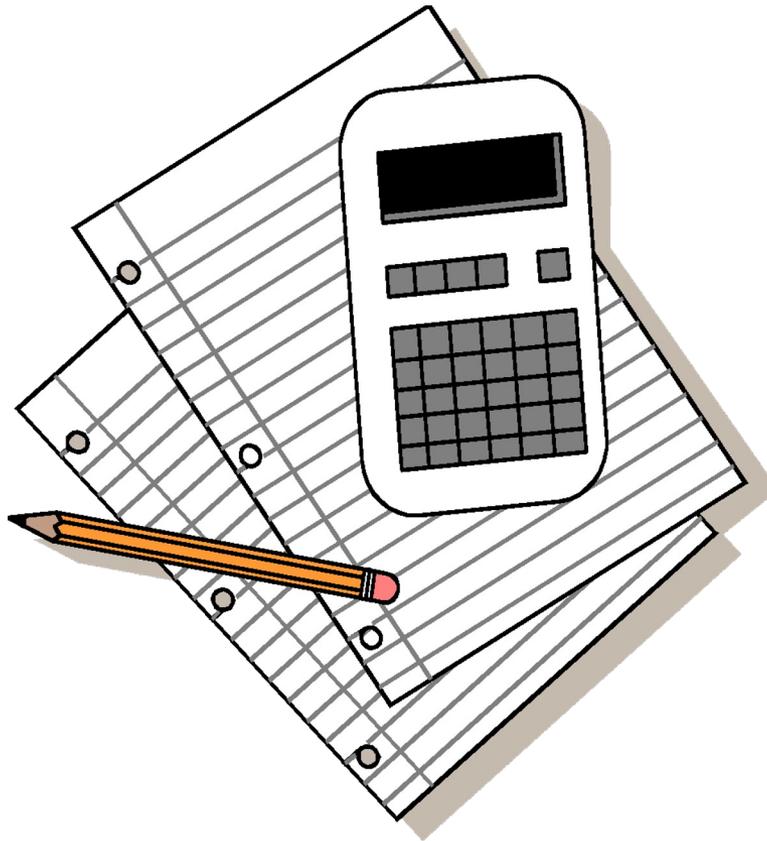
Foundation to HACCP



13 Programs

- Safety of water and ice
- Cleanliness of food contact surfaces
- Personnel hygiene and health
- Prevention of cross contamination compounds
- Maintenance of facilities for personal hygiene
- Protection of food from adulterants
- Waste management
- Recalls and traceability
- Training
- Pest Control
- Proper labelling & safe storage & use of toxic compounds
- Specification and supplier control
- Transportation and storage

Standard format



- Criteria

what is required

- Monitoring

what, how, when and who

- Corrective actions

if something goes wrong

- Records

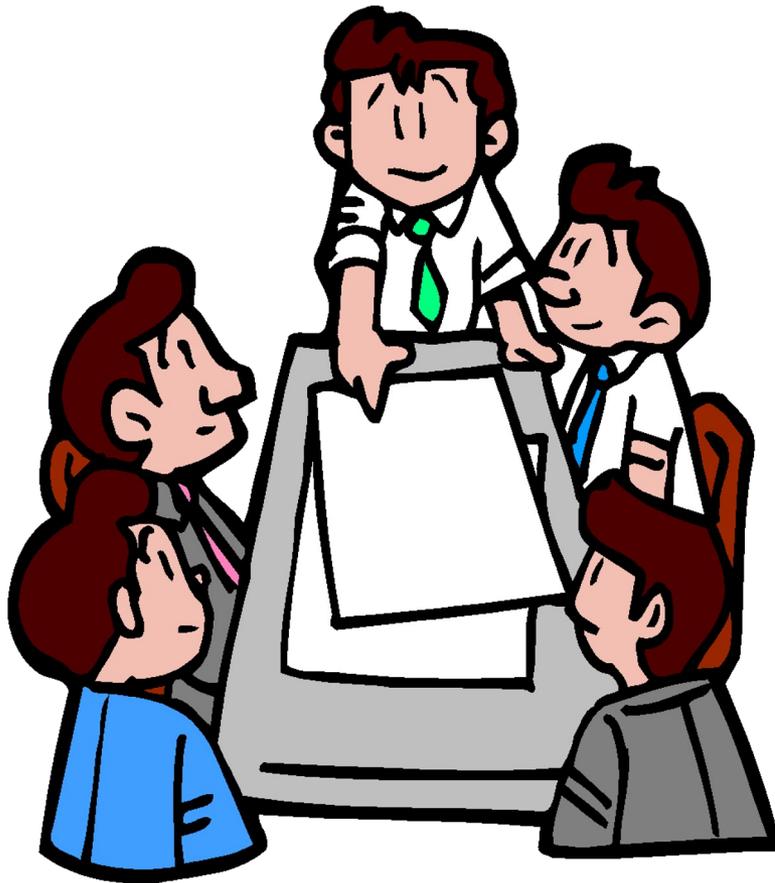
physical evidence

- Verification

check that it works



Use as guidelines...



- The following slides are GUIDELINES for each pre-requisite programme
- This means that there may be other criteria specific to your factory and operations
- Starting point for discussion!

Safety of water and ice

Criteria

- Water must pass potability standards
 - Total coliform, faecal coliform, faecal streptococci <1/100 ml
 - Sulphitered clostridia <1/20 ml
 - APC (22°C) 10^3 /ml guide level
 - APC (37°C) 10^2 /ml guide level
 - Residual free chlorine 2-5 ppm





Safety of water and ice

Monitoring

- What
 - ❖ Public water supply - official records from the water works
 - ❖ Own water supply:
 - residual chlorine
 - microbiological contamination
- How
 - Check records
- When
 - Daily (Chlorine)
 - Monthly (Micro)
- Who
 - QC Supervisor



Safety of water and ice

Corrective actions, Records and Verification

- Corrective action
 - Actions to be taken when criteria is exceeded must be outlined, e.g. adjusting water treatment, stop of production if water is contaminated, search for source of contamination
- Records
 - Records of all sampling, testing and actions must be kept for two years
- Verification



Clean food contact surfaces

Criteria

- A permanent cleaning and disinfection schedule must be drawn up. The following procedure should be followed:
 - Pre-cleaning - preparation of area for cleaning
 - Pre-rinse or soak in tanks
 - Cleaning with appropriate detergent (detergent type, concentration, contact time)
 - Rinse
 - Disinfection – application of approved chemical (name disinfectant, concentration, contact time)
 - Post rinse



Clean food contact surfaces

Monitoring

- What
 - Concentrations of cleaning and disinfection agents, cleaning operation, contact time for sanitation chemicals
- When
 - Daily
- How
 - Visual inspection, smelling for offensive odours feeling for greasy surfaces
 - Check labels
- Who
 - Foreman



Clean food contact surfaces

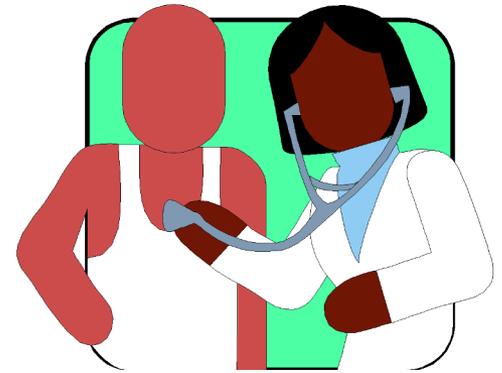
Corrective actions, Records and Verification

- Corrective action
 - Repeat operation
- Record
 - All observations and actions. Daily sanitation control records.
- Verification
 - Microbiological testing of food contact surfaces, review of records and procedures

Personal hygiene and health

Criteria

- Employees to report illness or injury
- The following shall apply
 - wear clean outer protective garments
 - proper hand washing and sanitising procedures (before starting work, after each absence)
 - removal of jewellery while working
 - effective hair restraints, use of gloves where necessary
 - eating, drinking, use of tobacco prohibited in production area





Personal hygiene and health

Monitoring

- What
 - Appearance and code of conduct of employees
- How
 - Visual
- When
 - Continuously
- Who
 - All supervisors



Personal hygiene and health

Corrective actions, Records and Verification

- Corrective action
 - Change of dress or behaviours
 - Relocation of employees suffering from communicable disease
 - Training
- Record
 - All observations and actions
- Verification



Prevention of cross contamination

Criteria

- Cooked, ready-to-eat products must be physically separated from raw materials during handling and storage.
- Employees hands, gloves, outer garments, utensils and equipment that come into contact with unsanitary objects (raw materials, flow, waste) must be adequately cleaned and disinfected before having contact with cooked or ready-to-eat products



Prevention of cross contamination

Monitoring

- What
 - Adequate separation of raw and cooked or ready-to-eat products and processing activities.
 - Cleanliness of food handling areas.
 - Employee handling practices and traffic in the plant.
- How
 - Visual
- When
 - Continuously
- Who
 - Supervisors



Prevention of cross contamination

Corrective actions, Records and Verification

- Corrective action
 - Stop all activities until areas or utensils are cleaned and disinfected or faulty procedures are corrected.
 - If contamination of cooked or ready-to-eat products - products must be segregated until a decision is made on their safety.
- Record
 - Daily sanitation records – including specified time for checks on cleaning and disinfection procedures
- Verification



Maintenance of hygiene facilities

Criteria

- Hand-washing and sanitising facilities must be located at toilets and at the entrance to all processing areas and maintained in a good condition.
- The facilities must be equipped with liquid soap, single-service towels and effective sanitiser dips.



Maintenance of hygiene facilities

Monitoring

- What
 - Check of facilities for cleanliness and good repair. More than one daily check for concentration of sanitiser dip.
- When
 - Daily
- Who
 - Q.E. supervisor
- How
 - Visual



Maintenance of hygiene facilities

Corrective actions, Records and Verification

- Corrective action
 - Immediate correction if facilities are broken down or not functioning properly. Replenishing of supplies if lacking or concentration is inadequate.
- Record
 - The daily Sanitation Record form should include all observations made and actions carried out.
- Verification
 - Microbiological testing



Protection of food from adulterants

Criteria

- Protection of food, food contact surfaces and food packaging material from:
 - adulteration with lubricants fuel, pesticides, cleaning compounds, sanitising agents, condensate and other chemical, physical and biological contaminants.
- Specify chemicals to be used in the facility and the requirements to handling and storage.



Protection of food from adulterants

Monitoring

- What
 - Check that the food, contact surfaces, packaging materials are free from adulterants
- How
 - Visual
- When
 - At start up and every 4 hours
- Who
 - Supervisor



Protection of food from adulterants

Corrective actions, Records and Verification

- Corrective action
 - Any unsatisfactory activity must be corrected. Possible correction could be to erect a screen to protect a product, correct air flow and ventilation, install covers to prevent condensation on the food or to reinforce training of employee.
- Record
 - Must be kept on all actions. A daily sanitation record is kept
- Verification

Waste management

Criteria



- Offal, waste and sewerage should be contained in closed containers, separate rooms or connected directly to a public septic system and be removed from the premises on a regular basis. Any container, room etc. used for waste should be marked accordingly.



Waste management

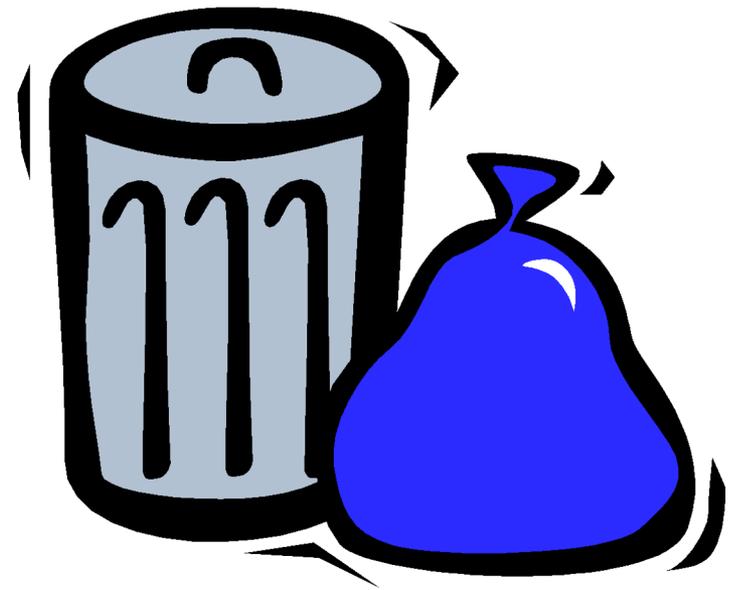
Monitoring

- What
 - Inspection of waste management utensils and procedures
- How
 - Visual
- When
 - Daily
- Who
 - Processing manager

Waste management

Corrective actions, Records and Verification

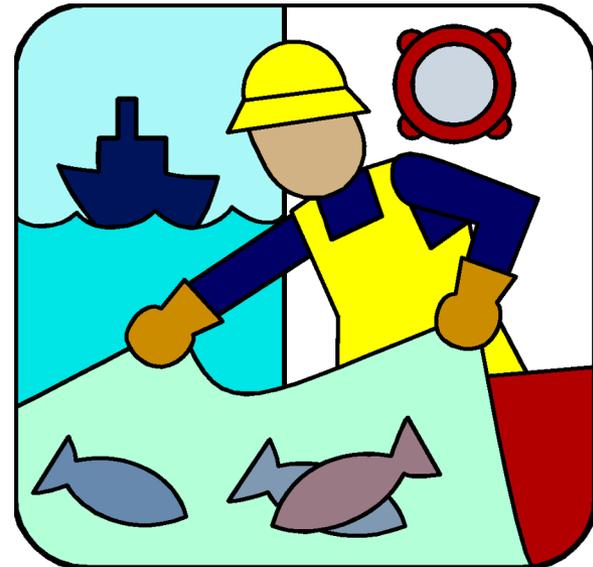
- Corrective action
 - Repair of system
- Record
 - All actions and observations
- Verification



Recalls and traceability

Criteria

- Each container of meat and meat product must be clearly marked to identify producer/processor and the lot





Recalls and traceability

Monitoring

- What
 - Inspection of packaging material and identification labels.
- How
 - Visual
- When
 - Daily
- Who
 - Processing supervisor



Recalls and traceability

Corrective actions, Records and Verification

- Corrective action
 - If a health hazard, products produced under similar conditions may be withdrawn. The need for public warnings? Recalled products to be held for further action (destroyed, reprocessed, used for other purposes).
- Record
 - Production records must be kept for a period that exceeds the shelf life of the products. All other actions and observations must be recorded.
- Verification
 - Checks of final products in storage for proper labelling.



Training

Criteria

- All meat handlers must have participated in a training course in personal hygiene, GMP, cleaning and sanitation.
- Those who handle strong chemicals must be instructed in safe handling techniques.
- Appropriate training in application of HACCP-system and process control to key personnel.



Training

Monitoring

- What
 - Skill, knowledge and code of conduct of employees
- How
 - Visual observation, occasional interviews
- When
 - Continuously
- Who
 - Supervisors



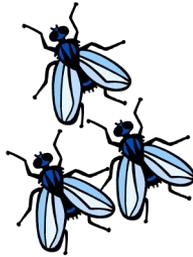
Training

Corrective actions, Records and Verification

- Corrective action
- Record
 - Number and type of training sessions/courses for personnel.
- Verification
 - Interviews with personnel.

Pest Control

Criteria



- Rodents, insects and other animals **are not** allowed in any area of the processing plant. An effective plan for pest control must be in place and include:
 - elimination of harborage and attractant areas
 - exclusion
 - extermination.



Pest Control

Monitoring

- What
 - Inspection of plant for presence or trace of pests (droppings), attractant areas, exclusion arrangements (screening of openings, windows etc.) and of rodent traps
- How
 - Visual
- When
 - Daily
- Who
 - Q.A. manager



Pest Control

Corrective actions, Records and Verification

- Corrective action
 - Immediate repair of defect screenings, removal of attractant areas. Possible involvement of professionals to exterminate rodents.
- Record
 - All actions and observations
- Verification
 - Review of extermination plan.



Labeling, storage & use - chemicals

Criteria

- All food processing plants use chemicals such as cleaners, sanitisers, rodenticides, insecticides, machine lubricants and various additives.
- These chemicals must always be used according to the manufacturer's instructions and have proper labelling
- They must be stored in a safe manner that protects against contamination of food or food contact surfaces



Labeling, storage & use - chemicals

Monitoring

- What
 - Check proper labelling, storage and usage of toxic compound
 - Check for manufacturer's labels
 - Chemicals must be stored in an area of limited access.
 - Food grade chemicals segregated from non-food grade chemicals
 - Chemicals shall only be used according to the manufacturer's instruction.
- How
 - Visual
- When
 - Daily
- Who
 - Supervisor (and staff)



Labeling, storage & use - chemicals

Corrective actions, Records and Verification

- Corrective action
 - Remove or discard in correct labelled or stored chemicals, to re-label working containers or reinforce training of employees.
- Record
 - All unsatisfactory ratings and corrective actions should be recorded. However, the daily records used to document conformance need not be complicated, but only marked as "satisfactory" on the daily sanitation control form.
- Verification



Specifications and supplier control

Criteria

- There should be written specifications for all ingredients, products and packaging materials.
- Each facility should ensure that suppliers have in place effective GMP and food safety programmes.
- These may be the subject of continuing supplier guarantee and supplier HACCP system verification.



Specifications and supplier control

Monitoring

- What
 - Check labelling and specifications and suppliers' guarantees
- How
 - 1. check documents
 - 2. visit to supplier for check of Q.A.programmes and records.
- When
 - Regarding 1 - each delivery or consignment
 - Regarding 2 - once annually - depending on volumes
- Who
 - Q.A. staff



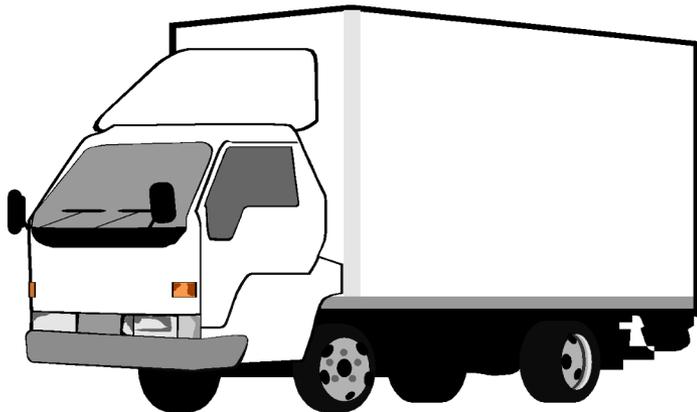
Specifications and supplier control

Corrective actions, Records and Verification

- Corrective action
 - Refuse entry of products or ingredients not complying with set standards. Notification of supplier [change of supplier?]
- Record
 - All actions and observations
- Verification

Transport and storage

Criteria



- Vehicles for transportation of meat and meat products should be designed and constructed so the meat is protected against contamination. Where appropriate vehicles must be equipped to maintain chilled (0°C) or freezer temperatures (-18°C).



Transport and storage

Monitoring

- What
 - Inspection of vehicles
- How
 - Visual, recording of temperature
- When
 - All shipment
- Who
 - Loading foreman



Transport and storage

Corrective actions, Records and Verification

- Corrective action
 - Replacement of vehicle
- Record
 - All actions and observations.
 - Documented learning and sanitation procedures
- Verification



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THANK YOU FOR YOUR ATTENTION



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