

GHP(Good Handling Practices)

GHP compliance covers the minimum sanitary and hygiene practices for food processors, such as hotels and restaurants, to ensure that food is safe and suitable for human consumption.

OBJECTIVES:

- 1) To identify essential principle of food hygiene-throughout the food chain.
- 2) Recommend a HACCP-based approach as a means to enhance food safety.
- 3) Indicate how to implement those principles
- 4) Provide guidance for specific codes which may be needed for-sectors of the food chain, processes or commodities to amplify the hygiene requirements.

SCOPE and USE:

- 1) Protect consumers from illness injury caused by food.
- 2) Policies need to consider the vulnerability of different groups within the population.
- 3) Provide assurance that food is suitable for human consumption.
- 4) Provide health education programs which effectively communicate the principles of food hygiene to industry and consumers.

ELEMENTS OF GHP:

- 1) Primary Production:
Environmental hygiene, Hygiene production of food sources, Handling, storage and scope, cleaning, maintenance of personnel hygiene.
- 2) Establishment, design and facilities:
Design and layout permit approaches maintenance, cleaning and disinfections.
Surfaces and materials in particular those in contact with food are non-toxic in intended use
Suitable facilities are available for temperature, humidity and other controls.
Effective protection against pest access

- 3) Establishment, maintenance and sanitation:
Maintenance and cleaning, cleaning programmes, pest control systems, waste management.
- 4) Establishment , personal hygiene:
Health status, illness and injuries, personal cleanliness, personal behavior.
- 5) Transportation :
Donot contaminate foods and packaging, effective cleaning and disinfected, protect from contamination-dust and fumes.
Maintain temperature, humidity , atmosphere and other conditions to protect the food from microbial growth.

GMP(Good Manufacturing Practices)

A GMP is a system for ensuring that products are consistently produced and controlled according to quality standards. GMP covers all aspects of production from the starting materials, premises and equipments to the training and personal hygiene of staffs.

10 Principles:

- 1) Writing procedures
- 2) Follow the written procedures
- 3) Documents for traceability
- 4) Validating works
- 5) Designing facilities and equipments
- 6) Maintaining facilities and Equipments
- 7) Job competence
- 8) Cleanliness
- 9) Component control
- 10) Auditing for compliance

Who needs GMP?

Company Chairmen, Presidents, Chief Executives, General Manager, Plant Manager, Technical Manager, Quality Assurance Manager, Food Hygiene Manager, Production Manager, Plant engineer, warehouse Manager, Distribution Manager.

GMP in Food Industry:

- 1) Personnel
- 2) Plant and grounds
- 3) Sanitary operation
- 4) Sanitary facilities and controls
- 5) Equipments and utensils
- 6) Processes and controls
- 7) Ware housing and distribution

Significance of Premises, Equipments, products and process Design in an Effective GMP System:

- 1) Premises: GMP states that buildings should be located, designed , constructed , adapted and maintained to suit the operation carried out in them and to facilitate the protection of materials and products from deterioration/contamination.
- 2) Equipments: GMP states that equipments should be designed , constructed, adapted, located and maintained to suit the processes and products for which it is used; to facilitate protection of the materials handled from contamination.
- 3) Product and Process Design: Products and Processes should be so designed to ensure that the end-products meet consumer expectations within the intended duration and circumstances of all operations and processes used in manufacture be capable of consistently yielding finished products that confirm to their

specifications are suitably protected against contamination or deterioration.

Significance of storage and movement of Product in GMP:

- Access to material and product storage areas should be restricted to persons working in the designated areas and to authorized persons.
- Materials and products should be stored under conditions specified and protected from contamination especially microbiological and cross contamination.
- Effective cleaning of storage premises and equipment must be carried out with the frequency and in well designed cleaning schedules and instructions.
- Products have recalled or returned , and batches that have been rejected should be marked, physically segregated and placed in an entirely separated storage facility.

HACCP:

Hazard Analysis and Critical Control Point(HACCP) is an international food safety regulation that is followed to reduce the risk of hazards in a food processing unit. It is a system that identifies possible hazards and controls them at various points of the production process. The HACCP is based on seven principles. They are:

- 1) **Conduct a hazard analysis:** Evaluate the production process and identify the points where hazards (physical, chemical and biological) may be introduced.
- 2) **Identify Critical Control Points:** Identify the Critical Points in the process plan where a hazard may occur.
- 3) **Establish Critical Limits:** state the boundary line between safe and unsafe processes. State the limit until which a critical point may be controlled.

- 4) **Establish a Monitoring Systems:** State the process of monitoring critical points and critical limits.
- 5) **Establish Corrective measures:** Specify the corrective actions that should be followed when limits are crossed.
- 6) **State verification Procedures:** State the verification process to check whether HACCP principles are applied and followed. Test the HACCP plan and ensure compliance on a regular basis. Check whether the HACCP plan helps to prevent hazards effectively.
- 7) **Follow record-keeping Procedure:** Keep records of all the critical points. Maintain a log of situations when critical limits were exceeded. State the corrective measure that were applied.

Need for Documentation:

Every organization has to maintain records of raw materials procurement, production processes, and sales. This is to ensure that the business runs effectively and profitable. Reasons for documentation:

- It gives detailed knowledge about running of the business.
- It helps to control product quality.
- It helps to keep track of the money invested in the business.
- It helps to identify the separate costs of raw materials or product ingredients.
- It helps to identify production cost of a particular process.
- It helps to ensure that Quality Assurance procedures are followed.
- It helps to ensure that the production unit is running smoothly.
- It works as an evidence for legal procedures.
- It helps to set an appropriate product price.
- It helps to take corrective measures at the right time.

RECORD –KEEPING:

Every food processing organization follows a more or less similar way of keeping records. Production records keep a log of:

- The quantity and type of raw materials.
- The quantity and type of ingredients used.
- The processing conditions in which production took place.
- The product quality.

Product quality can be maintained only when:

- The same quantity and quality of ingredients and raw materials are mixed in every batch.
- A standard formulation is used for every batch.
- Standard process parameters are applied for every batch.

Every batch of food is given a batch number. The number is recorded in:

- Stock control books(where raw material procurement is noted).
- Processing logbooks(where production process is noted).
- Product sales records(Where sales and distribution is noted)

The batch number must correlate with the product code number, which is printed on labels. This helps the processor to trace any fault found in a batch back to the raw material used or the production process.

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Food Processing and Quality Mngement