

# GUIDELINES FOR IMPLEMENTING GMP IN FOOD PROCESSING

## 2.Storage Facilities

### 2.1 *Use of off site facilities - are they controlled*

2.1.1 Where the manufacturer commissions the services of (or contracts to) off site facilities e.g. airport coldroom, for storage purposes, which are directly related to the handling of his products, he must be satisfied that the facility used is well organised, clean and capable of providing the service.

#### Auditor's Recommendations:

Look At:	Look For:
Contract Review	Conformance to agreed standards within contracts
Audit Review	Audit schedule and reports for storage and suppliers etc.

2.1.2 Whether raw materials, work in progress materials, finished product, equipment or packaging are stored off site, the responsibility of the off site facility must be clearly identified and adhered to at all times.

#### Auditor's Recommendations:

Look At:	Look For:
Product Identification and Traceability	Records of product identification Clear labelling system to enable traceability through records

2.1.3 The same principles apply to the hygienic control and housekeeping of off site facilities, as in-house facilities. There should be access around all stored items to effectively implement cleaning, pest control and maintenance. In cases where temperature control and humidity are important to the product, storage layout must be well controlled to ensure good ventilation.

#### Auditor's Recommendations:

Look At:	Look For:
Factory plan and layout	Compliance to safety and requirements of cleaning, production and process are achieved through effective implementation and records for each activity – pest, cleaning , product activity and ventilation

2.1.4 The manufacturer should make provision to vet the off site storage facility prior to commencing the contract, and at regular intervals thereafter. Formalised reports of the vetting inspections should be forwarded to the off site facility with any recommendations for corrective action and a photocopy held on file in-house. This also applies to vehicles used.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
External Audit and Contract Review	Audit Reports for storage requirement assessment Identification of corrective actions and evidence that they are being actioned Agreements in contractual obligations

**2.2 Adequate segregation and storage disciplines**

2.2.1 It is recommended that all materials should be stored off the floor on clean pallets at least 20cm away from the wall to facilitate adequate cleaning, pest control and product ventilation.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Storage, Handling and Packaging	Conformance to procedure  Cleaning records and pest control activity monitored and frequent

2.2.2 It is recommended that stacking of pallets of raw materials or finished product is in a controlled manner to prevent the damage risk and or cross contamination through encouragement of pests through product leakage, spillage and taint (particularly sacked product).

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Storage, Handling and Packaging	Conformance to procedure
Product Traceability	First In First Out Stock rotation policy in operation with records

2.2.3 Incoming materials, work in progress and finished product must be clearly identified and stored in separate designated areas of the factory.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Identification and Traceability of Product	Records of incoming goods and outgoing finished products are maintained and product is traceable through the system

2.2.4 Incompatible materials must be completely segregated e.g. aromatic cleaning materials, incoming and finished products, to prevent the risk of cross contamination.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Product Handling, Storage and Packaging	Storage records and segregation of product to meet minimum food safety requirements

2.2.5 Packaging materials should be stored in a separate area which is dust free and pest proofed with the same detail as other areas of the factory.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Packaging Materials	Records of packaging suppliers and storage of product in clean environment

2.2.6 Non food chemicals such as cleaning compounds and agricultural chemicals, should be stored in separate, secure areas, together with their associated application equipment.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Storage of Non-food material	Location of storage facility within the factory Separation of possible 'lethal' combinations Assigned responsibility

2.2.7 The quality manager should complete a verification e.g. approved, correct type, amount, and container, of relevant chemicals to be brought on site .Appropriate measures can then be taken to ensure the safe use and storage of them in compliance with relevant legislation.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Risk Assessment Criteria	Risk Assessment Criteria established for evaluation of chemicals Identification of measures to ensure safe use and storage Assigned by responsible company member

2.2.8 Where non-food chemicals are decanted into containers for use, the containers must be clearly and unmistakably identified with their contents. If possible, they should be colour coded and dedicated to that sole use. Old or redundant food ingredient containers are strictly forbidden for this purpose.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Product Identification and Traceability	Identification of containers, whatever their use, by clearly labelled and where also possible by colour coding, including on-site information completed on relevant records

**2.3 Sealed/proofed loading areas**

2.3.1 All loading areas should be sealed and proofed against pests and birds to prevent contamination of product packaging during the loading operation.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Incoming and Outgoing Materials	Records for all incoming and outgoing product
Housekeeping Methods	Ensure trained and responsible staff ensure suitable pest proofing in place
Site Maintenance and Inspection	Records of inspections and maintenance available to demonstrate housekeeping methods in control

2.3.2 In the case of chilled or frozen products, where temperature control is a critical factor in food preservation, loading of delivery vehicles must take place through sealed docks, from a temperature controlled environment.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Transport and Delivery of Products to and from site	Temperature Control Records Evidence to ensure freshness and quality of product on arrival and out of factory

2.3.3 All loading areas must be kept clean, tidy and well maintained to discourage pest ingress.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Transport and Delivery Loading Bays Cleaning Schedule	Pest ingress and completion of housekeeping records In-coming / Outgoing product assessment Cleaning Records

2.3.4 Fork lift trucks used within storage and loading areas should be battery driven to prevent fume contamination.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Maintenance and Inspection Design Specification	Maintenance and Inspection Schedules with records of repair  Design criteria met to meet Health & Safety Requirement and prevent fume contamination

**2.4 Separation/separate finished goods facilities**

2.4.1 Packed finished product should be checked and approved by the Quality Assurance department prior to releasing to the finished goods storage facility. It must be clearly labelled.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Finished / Final Product	Product identification and quality records HACCP Records Non-conformance and corrective action reports

2.4.2 Approved batches of finished product should be stored in separate areas, under the appropriate conditions of temperature and as agreed in the finished product specification.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Handling, Storage and Packaging	Traceability and Identification of finished and raw products Temperature Records Finished Product Specifications

2.4.3 Intermediate storage must be provided where delays in the process are unavoidable (e.g. through line stoppage, equipment breakdown)

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Storage  Equipment maintenance and process control	Temperature Control Process Control Records Maintenance and Inspection records

2.4.4 Defective batches of finished product which do not meet the required specification should be quarantined, labelled clearly and held in a specific area pending investigation, to avoid their accidental use.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Finished Product	Product Specifications
Quality Audit Review	Internal Audit Review and HACCP records
Identification and Traceability	Non-conformance / corrective actions and preventative measures
Quarantine Procedure	Product labelling and coding with records Storage in appropriate areas and stores

2.4.5 The company must demonstrate a strict regime on quarantined stock which, is either to be reworked, or disposed of.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Quarantine Procedure	Policy for quarantine and records of management of quarantined product with appropriate disposal records

2.4.6 If a batch of approved finished product is temporarily stored unlabelled, to be labelled and coded at a later date, extreme care must be taken in guaranteeing its exact identity.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Product Identification and Traceability	Records of product and batch Coding and labelling system in place

2.5 ***Segregation of returned or damaged goods***

2.5.1 Batches of finished product which, have been recalled or returned, should be so identified and physically segregated, preferably in an entirely different storage facility.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Finished Product	Product Specifications Product Identification and Traceability
Returned Product	Storage Conditions Storage / Disposal Procedures Audit Review procedure

2.5.2 Damaged goods should be stored in a designated area of the warehouse as they occur or are discovered. Extreme care must be taken not to expose other products within the storage facility to contamination or infestation.

**Auditor's Recommendations:**

Look At:	Look For:
Product Specifications	Inspection and Maintenance of Storage facility
Handling, Storage and Packaging	Storage conditions and records – Temperature Records etc Pest Control Records and development

2.5.3 Where disposal of damaged goods is necessary, all labelling should be removed, even for products going to staff sales, to prevent the products re-entry into the distribution chain.

**Auditor's Recommendations:**

Look At:	Look For:
Disposal Procedures	Disposal Records and removal of labelling Preventative measures to stop re-entry to factory

2.5.4 Effective management procedures to safeguard against suspect, returned or damaged finished product being accidentally despatched, must be implemented

**Auditor's Recommendations:**

Look At:	Look For:
Finished Product	HACCP and Process Control Records
Dispatch and Transport	Records of dispatch approval and transportation

2.5.4 Where damaged product is accepted onto a vehicle also carrying "sound" product, it must be clearly labelled, kept separate and handled in a manner which will eliminate the risk of contamination or infestation to other products on the vehicle.

**Auditor's Recommendations:**

Look At:	Look For:
Finished Product	HACCP and Process / Production Records
Product Identification	Product identification and labelling
Handling, Storage and Packaging	Product Storage and handling

- 2.5.5 The company should have a formalised procedure to deal with the consequences of accidents or damage during storage and distribution. e.g. the rescue or condemnation of goods damaged in a road traffic accident.

**Auditor's Recommendations:**

Look At:	Look For:
Transport and Distribution	Audit Reports and Non conformance / corrective action reports Formal procedure for transport accident measures

2.6 ***No tainting risks - incompatible goods***

- 2.6.1 Materials which may present a taint risk to other products e.g. label adhesive, cleaning chemicals, alcohol based sanitisers should be stored separately. This is particularly important for raw materials which, have been opened ready for use and for work in progress material in the system.

**Auditor's Recommendations:**

Look At:	Look For:
Segregation and storage of contaminants	Specific stores and storage records for all non-food and food materials with traceability
Traceability and Identification	Product coding and segregation requirements as per safety standards

2.7 ***Goods removed rapidly from loading docks***

- 2.7.1 Both incoming raw materials and outgoing finished product must be swiftly handled at the loading bay to avoid temperature increase where relevant and to minimise the risk of contamination onto outer packaging from external sources.

**Auditor's Recommendations:**

Look At:	Look For:
Incoming Raw Materials	Records for incoming and outgoing produce with traceability
Outgoing Finished Product	Temperature and handling records Product and packaging assessment on entry / exit to factory

2.8 ***Standard of management control and instrumentation***

- 2.8.1 The standard of management control evident in the storage areas should mirror that of other responsible departments. Managers must fully understand and have the authority to discharge their responsibilities effectively through their team of operatives.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Management Review and Responsibility	Organisation Charts Management Review records and meetings Assign management responsibilities

2.8.2 Management controls must ensure that:-

- i. all products are easily accessible for load assembly.
- ii. aisles are kept clear and products stored in designated areas.
- iii. movement around the storage area is unimpeded.
- iv. products are released or used in proper stock rotation.
- v. there is maximum utilisation of the available space.
- vi. suspect product is identified.

2.8.3 Instrumentation used to record the internal conditions of storage areas must be regularly checked and calibrated, to ensure that it is working accurately. This is particularly important for temperature and humidity monitoring equipment.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Calibration and Equipment Maintenance	Records of calibration and frequency Test and Maintenance Frequency Temperature and Humidity Records

2.9 ***Adequate chill storage***

2.9.1 Sufficient chill storage must be available for products requiring temperature control, within the specified temperature range. On no account must chilled product be held in ambient or frozen storage areas through lack of space.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Process Control Chill / Frozen and Ambient Stores	HACCP and Process Control Records Product Specifications and Storage Records Batch and Production Planning Meetings and Records to manage store

2.10 ***Adequate distribution facilities including vehicles***

2.10.1 Vehicles used for the primary distribution of chilled or frozen foods should be capable of maintaining the specified temperature ranges, which have been agreed with the manufacturer.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Transport and Distribution	Maintenance and inspection records Temperature Records Contract / Supplier Assurances met through recordkeeping

2.10.2 Temperatures at the point of despatch and during transit, must be monitored and recorded and must comply with those agreed.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Temperature Control	Temperature Control records

2.10.3 Loading of such vehicles must take place through sealed docks, from a temperature-controlled environment.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Loading and Handling	Loading Guidelines for products

2.10.4 Prior to loading, all delivery vehicles must be internally inspected to ensure that they are clean, free from moisture, foreign objects and pests that could cause product contamination or damage to the packages. This check should be recorded.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Delivery and Transport Inspections	Cleaning and Maintenance records for all delivery trucks Internal Inspection reports prior to loading Non-conformances and corrective actions records

2.10.5 It is essential where vehicles are used to transport different products e.g raw material, final products, and by products then the vehicles should be free from odours, which could cause taint problems, and that this is checked and recorded.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Delivery and Transport Inspections	Vehicle use records Ideally look for single product / material use i.e. liquids only

2.10.6 Delivery of products must always be within closed vehicles to prevent contamination from external sources.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Vehicle load and delivery	Sealed containers and records to demonstrate

2.10.7 The driver of the vehicle must comply with relevant aspects of the GMP requirements at the factory and at the depot or store.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Food Hygiene Requirements	HACCP system and records of control
Supplier Assurance and Contract Review	Supplier Assurance Records

2.10.8 The load should be evenly distributed and should ride satisfactorily in the vehicle.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Delivery and Product load	Distribution of load to aid air flow

2.10.9 Where the services of a contract distribution company are commissioned their vehicles and administrative procedures must be vetted and deemed acceptable prior to a contractual agreement being made.

**Auditor's Recommendations:**

<b>Look At:</b>	<b>Look For:</b>
Service Contracts	Audit reports for contracted services Records of non-conformance and corrective action