Guideline
Logistics Fruit, Vegetables, Potatoes

QS

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Contents

Note: The Guideline Logistics Fruit, Vegetables, Potatoes is written in German and translated into English. In case of discrepancies between the translation and the German version, the German original is valid.

1 Fundamentals

You will find basic information on the QS scheme, such as organisation, terms of participation, use of the QS certification mark and sanction procedures in the **Guideline General Regulations**.

1.1 Scope

This guideline applies to all logistics companies that exclusively transport, and/or store and if necessary do the order picking of fresh, prepared and processed fruit, vegetables, potatoes without becoming the owner of the products.

1.2 Responsibilities

The **scheme participant** is responsible for ensuring:

- Compliance with requirements
- Complete and correct documentation
- Completion of self-assessments
- Adequate and timely implementation of corrective actions
- Correct use of the QS certification mark and product labelling

Scheme participants must comply at all times with the requirements of the QS scheme and always be in a position to demonstrate compliance with said QS requirements. Scheme participants must ensure compliance not only with the requirements of this guideline and all other applicable QS requirements (e.g. General Regulations, Guideline Certification) but also with the applicable legal provisions both within the country in which the QS produce is produced as well as the country in which they will be marketed by the scheme participant.

2 General requirements

2.1 General scheme requirements

2.1.1 General business data

A company overview containing the following master data must be created:

- Company name
- Address of the main company (incl. QS ID) and all its locations
- Type of company and location number
- Current address
- Contact details of legal representatives incl. phone numbers and email addresses
- Information on existing quality management and audit systems (e.g. ISO 9001, IFS, BRC, GMP+)
- Details on production scope (logistics)
- Details on crisis management (name of crisis manager, etc.)

The master data must always be kept up to date in the QS database by the scheme participant.

Existing documents can be used (e.g. QM or HACCP). The company overview must remain on the company premises. If the rooms are shared by several companies, all rooms belonging to the company must be identified in an operational plan. A list of the goods vehicles used for transport must also be prepared.

🗐 Company overview

2.1.2 Use of the QS certification mark

Scheme participants are entitled to use the QS certification mark once they have been permitted to do so by an agreement with the certification body. The QS certification mark may only be used in accordance with the **Style Guide**.

2.1.3 Incident and crisis management

QS has developed a comprehensive crisis management system that actively supports scheme participants in the event of an incident or crisis. The scheme participants must inform QS immediately and – where a legal obligation exists – the competent authorities about critical incidents and public product recalls relevant to the QS scheme.

Critical incidents are scheme-relevant occurrences that pose or could pose a risk to humans, animals, the environment, assets or the QS scheme as a whole.

Scheme participants must inform QS, in particular if:

- Nonconformities occur in goods procurement, production or marketing that might pose a risk to food safety
- Preliminary proceedings are initiated due to violation of regulations to secure food safety
- Investigations are carried out by the media, there are critical reports in the media, or public protests are held on issues of food safety

Each scheme participant must keep a paper of incident at their disposal to enable them to pass on any required information in the appropriate format if an incident occurs. Moreover, all scheme participants must name a crisis manager, who is reachable at all times. The name of the crisis manager must be entered in the QS database.

A procedure must be defined and introduced for conduct in the event of incidents or crises and verified at regular intervals, but at least once a year (approx. every 12 months). It must include the following points:

- Creation of a crisis team
- Emergency call list
- Procedure for product recall and return
- Communication plan
- Customer information

⬚ Paper of incident, incident and crisis management procedure

2.1.4 Handling of documents

A procedure for archiving the documentation must be in place and must be applied in the company. All relevant records are to be kept in a detailed and seamless manner.

Documents and records of self-assessments must be retained for a period of at least two years – provided longer retention periods are not stipulated by law.

2.1.5 Company premises and access regulations

All buildings and operating facilities must be protected from unauthorized access and, where possible, be kept closed. Access regulations must be in place. Operating rooms in which food is stored may not be accessible to unauthorised persons.

External visitors may only have access to the operating rooms if accompanied by or in agreement with an authorised person. With the exception of drivers within the scope of loading activities in the designated loading zone, all external visitors must receive instructions prior to entering production areas.

If loaded trucks are parked on the company premises, they must be secured against access of unauthorized persons.

If the business premises are entered by external transport vehicles, e.g. delivery or disposal vehicles, this must be accounted for in the risk assessment.

⬚ Access regulations

2.1.6 Monitoring of test equipment

When calibrating and monitoring the functionality of the instruments and devices used as test equipment (e.g. thermometers), the intervals stipulated by the manufacturers must be complied with. If a manufacturer has not made any stipulations in this regard, the test equipment must be calibrated or checked in line with the perceived estimation of the risk but at least once a year (approx. every 12 months).

The measuring methodology of the various test devices must be taken into consideration. The calibration or check procedure must be described for each test device. The results must be documented (incl. nonconformities, corrective actions) and clearly assigned. The measuring precision, reliability and functionality of operational test equipment must be guaranteed.

If calibration is not possible for some test devices, they must undergo appropriate maintenance and servicing.

If required by law, any scales that are in use must be calibrated.

Applicable documents are the German **Act concerning the placement and provision of measuring instruments on the market, their use and verification, and also on prepackages**.

🗐 Evidence of adjustment and monitoring of test equipment, documentation of calibration/test

2.1.7   [K.O.] Conducting self-assessments

Compliance with QS requirements must also be checked within the company itself. Self-assessments must be conducted regularly. They must be documented based on a checklist at least once a year (approx. every 12 months). Existing control and documentation systems can be used if they guarantee that the requirements are fulfilled.

Internal controls can be documented via either an automatic registration process (e.g. automatic temperature records) or a manual recording process (e.g. incoming goods inspection).

Completion of self-assessments may also be contracted out to an external company with the appropriate qualification.

🗐 Self-assessment records and checklist

2.1.8   Completion of corrective actions in the case of nonconformity

Nonconformities that are detected during a self-assessment must be resolved within the defined time frame. Responsibilities must be established.

2.1.9   Food safety culture

An appropriate food safety culture is established by the food business operator in accordance with **Reg (EU) 2021/382**. Responsibilities and accountabilities for all processes related to food safety are clearly defined. The implementation and timeliness of the food safety culture is to be ensured by the food business operator. The essential principles required for that purpose are part of the QS participation and certification.

2.1.10 Commissioning of logistics companies/subcontractors

Logistics companies that are commissioned to transport QS produce between QS scheme participants at stage wholesale/logistics and/or preparation/processing, or to store and in some cases pick goods, must be registered and approved in the QS database for either the logistics, wholesale or preparation/processing production scopes.

GMP+ certified companies that have eligibility of delivery for the production scope "logistics" can be commissioned exclusively for the transportation of unpackaged, loose potatoes and onions in bulk/in big bags. In addition, companies that have been certified at the feed sector stage in accordance with the QS standard and have eligibility of delivery for the production scope "road transport (feed)" may be commissioned for the transportation of unpackaged, loose potatoes and onions in bulk/big bags.

The principal/consignor (QS scheme participant) is responsible for fulfilling the requirements. The scheme participant must inform the logistics company if the delivery involves QS produce.

In the case of short-term commissioning of additional logistics companies for the transport of QS goods within the framework of individual daily contracts (e.g.in the case of high seasonal volumes, goods from the spot market), this requirement may be deviated from. In this case, the companies must be committed to complying with the QS requirements (⇒ Logistics Guideline 2.3, 3, 5).

The implementation of these requirements within each company (e.g. carriers) must be ensured through evidence and monitored using random sampling as part of their self-assessments.

🗐 Process for checking QS eligibility of delivery in the case of short-term or one-off transportation: evidence of implementation of the QS requirements, self-assessment checklist

2.2   HACCP

2.2.1   Self-assessment system

To ensure the necessary food safety, the company must prepare, apply and maintain a hazard control system in accordance with the HACCP principles (**REG (EC) No. 852/2004**).

Basis and prerequisite for the implementation of a HACCP system are basic hygiene measures, including the codes of practice for good hygiene practice (GHP) and good manufacturing practice (GMP).

This concept is based on:

- The identification of hazards that have to be avoided, eliminated or reduced to an acceptable minimum
- The determination of critical control points on the respective process stage on which control is necessary in order to avoid or eliminate hazards or reduce them to an acceptable minimum where they exist
- Determination of limiting values for these critical control points on the basis of which a difference can be made between acceptable and unacceptable products with regard to the avoidance, elimination or reduction of established hazards
- Determination and implementation of efficient methods for monitoring the critical control points
- Determination of corrective measures for the event that monitoring shows that a critical control point is not under control
- Determination of verification methods to establish whether the measures listed above are completely and effectively functional. The verification methods are to be applied regularly.

The structure of the HACCP concept must be understandable by third parties. It must contain a schematic diagram of the entire process in which the goods are handled.

If changes are made to a process at the storage or transport stage, the company must review the HACCP concept and alter it as necessary.

Responsibilities must be clearly defined by means of an organigram.

2.2.2 Review of the self-assessment system

Documentation appropriate to the type and size (depending on the products handled) of the business must be kept to demonstrate that the measures listed in point 2.2.1 are being applied.

The implementation of the HACCP concept must be reviewed (verified) at least once a year (approx. every 12 months).

🗂 Self-assessment records, checklists, proof of verification

2.3 Good hygiene practice

2.3.1 Storage of cleaning agents and disinfectants

The rooms or fixtures in which cleaning agents, disinfectants and equipment are kept must be clean and tidy. They must enable the hygienic storage of the equipment and their distinct separation where necessary for the clean/unclean areas. Equipment must be maintained and serviced regularly. There must be a procedure for cleaning the rooms and equipment and disinfecting them when necessary, and personnel must be aware of such a procedure.

Updated safety data sheets and instructions for use must be on hand for cleaning agents and disinfectants. The responsible personnel must be aware of the instructions, which have to be kept on site. Cleaning equipment and chemicals must be clearly marked and labelled and stored separately from foods and in accordance with the specific requirements.

For environmentally hazardous substances, additional precautions (e.g. protective trays) must be met in accordance with the relevant safety data sheets and usage instructions.

🗂 Safety data sheets, operating instructions

2.3.2 Foreign substance management

The infiltration of foreign substances into food must be prevented. Corresponding precautionary measures and procedures must be implemented to minimize the risk.

🗂 Foreign substance management records

2.3.3 [K.O.] Risk of contamination

To avoid contaminations a risk-based management needs to be carried out.

2.3.4 Staff hygiene

Documented guidelines must be present concerning staff hygiene, which have been communicated to staff during training sessions. At least the following points must be taken into consideration:

- Hand washing and disinfecting
- Eating, drinking, smoking and chewing gum
- Conduct in the event of skin injuries (cuts, grazes)

- Handling fingernails, jewelry, piercings and watches
- Handling hair, beards

Smoking while working and inside work rooms is forbidden and only permitted in the designated places and rooms. Rooms must be fitted with clearly visible signage (no smoking).

There must be sufficient hand hygiene stations available. Hand hygiene facilities in the production area must at least fulfil the following requirements:

- Running cold and hot water
- Liquid soap from dispensers (not bottles, for example)
- Appropriate options for hand drying (devices for hygienic hand drying)

Staff hygiene provisions must be observed and applied by all concerned (employees, service providers, etc.). There must be a procedure for regularly checking the consistent implementation of staff hygiene in the company. The results must be evaluated and, if necessary, corrective actions for optimisation initiated. Staff whose activities directly affect product safety must have the necessary experience/training.

▢ Rules of conduct, procedure for implementation and monitoring of staff hygiene

2.4 Training of staff

2.4.1 Safety at work

Each employee must be trained annually on the tasks and measures that must be taken in the company for food hygiene and safety in the workplace. The name of the person who provided the training, date of training, names of participants, topic and, if applicable, any training material that was used or handed out must be recorded. The training sessions must be structured according to the education and function within the company of the person who is receiving the training.

▢ Training proof

2.4.2 [K.O.] Hygiene training

Based on **REG (EC) No. 852/2004**, hygiene training courses are to be held in the company every year (approx. every 12 months). Documented training programs must be defined in line with the product and the employees' field of activity

This training plan must include the following:

- Contents
- Training intervals
- Participants and instructor
- Languages

▢ Training program and training proof

2.5 Waste disposal logistics/returns

2.5.1 Waste disposal logistics

Food waste and other waste products

- must be removed from locations in which food is handled as quickly as possible in order to prevent an accumulation of waste
- must also be stored in closed containers. These containers must be suitable for proper maintenance, easily cleanable and, if necessary, easy to disinfect. If there is a risk of confusion between waste containers and food containers, or for any another necessity, the containers must be labelled.

Suitable precautions must be taken for the storage and disposal of food waste and other waste products. Waste collection rooms must be designed and managed in a way that they can be kept clean and free from animals (dogs, cats, birds) and pests. The rooms must be cleaned regularly. This must be documented. Waste must be stored in an area where it is protected against unauthorised access.

Waste must be disposed of as per local hygiene regulations in a hygienically sound, environmentally sustainable manner and may not impair food. Waste water disposal facilities must be constructed in such a way that they cannot impair goods.

To avoid unnecessary waste and to ensure an efficient use of resources, the company must have its own waste management/recycling system in place. Waste must be disposed of selectively (e.g. dual system or similar). The recycling management plan must be documented, and evidence must always be available for:

- Waste produced
- Disposal route
- Fate

⧉ Evidence of waste management/recycling system

2.5.2 Returns management

A system for processing returns has to be established. All returned goods must be recorded and evaluated. If the reason for the return of the goods is the responsibility of the logistics manager, the internal procedure for handling returns is implemented accordingly by the responsible employees. The deviations must be evaluated by the responsible person and appropriate measures must be taken to prevent the recurrence of deviations.

2.6 Ground clearance

Note: The following requirement is described in Chapter 2 (General Requirements) on a superordinate basis. The requirement is evaluated on a more detailed level in the process-specific chapters: process-specific requirements, storage, cold storage rooms, frozen storage rooms.

A system must be implemented and enforced whereby products and containers containing or intended to contain food must not be placed directly on the floor. The goods must be stored and transported in such a way that there is no risk of contamination.

The following are excluded:

- Automated storage systems that are limited by physical barriers and from which containers are picked mechanically from above. Storage areas are not accessed except for cleaning and maintenance purposes, are in a hygienically sound state and do not pose a risk of contaminating produce.
- Industrial containers (e.g. BIG boxes), that are designed to stand on runners or legs off the floor. If these containers are stacked, contamination of the food must be prevented via company regulations.
- Unpacked potatoes and onions: These can be stored directly on the floor or appropriate equipment it the floors or the material on which the goods are stored are in perfect hygienic and clean condition.

3 Transport/logistics

3.1 Process-specific requirements

3.1.1 Product-compliant transport

Goods must be transported as per product requirements. Goods must be transported in closed, heat-insulated vehicles or refrigerated vehicles, taking into account the type of goods, transport distance and outside temperatures. Fruit, vegetables and potatoes that are transported in open bags on open vehicles must be adequately covered. Loose goods are to be transported in such a way that no contamination may occur.

⧉ Evidence of product-compliant transport

3.1.2 Transport hygiene

The vehicles must be in a hygienic and orderly condition with no residual dirt. Storage rooms/loading areas of transportation are only allowed to use if they are clean and free from contamination. Before loading and after unloading, the loading area must be checked for dirt. If necessary, the loading area needs to be cleaned.

The driver and any accompanying persons must be dressed in clean clothing. Clothing must be such that there is no negative influence on the products during handling. The goods to be transported must be loaded in a hygienic manner.

To ensure that no vermin are attracted, the company must ensure that a high standard of cleanliness and hygiene is complied with on the freight areas of the vehicles.

⧉ Checklist transport vehicles

3.1.3 Ground clearance

⇒ 2.6 Ground clearance

3.1.4 [K.O.] Temperature control

For vehicles in the company's own fleet, the temperature inside cargo holds must be set in accordance with the goods to be transported. The temperature must be checked and documented before the start of the journey. If necessary, the temperature recorders on the vehicle must be checked and read. Temperature checks before the journey may be omitted if temperatures are recorded continuously during transport.

For goods that require cold storage, the temperature for the entire journey must be maintained and continuously documented in accordance with the applicable guidelines and specifications.

In the case of frozen food, the temperature throughout the food must be maintained at minus 18 °C or below. During unloading and putting into storage, short-term variations by a maximum of 3 °C are permitted (in accordance with **TLMV (German Frozen Food Ordinance)**).

⎙ Temperature control and documentation

4 Storage

4.1 Process-specific requirements

4.1.1 Order and organisation

Goods must be received via structured work processes. Spatial arrangements must be clearly highlighted in the work process and any potential risks for food safety must be avoided. The path of the goods must be designed so that no cross-contamination may occur. Goods that require refrigeration must be delivered immediately into the cold storage rooms, otherwise corrective actions must be taken to guarantee compliance with the cold chain.

4.1.2 [K.O.] Goods inspection

Inspections of incoming goods must be carried out according to a regulated process on the basis of internal guidelines. These incoming goods inspections must be recorded. They must comprise all relevant products and parameters, e.g. temperature and damage/contamination.

If required, the goods inspection must be adjusted to any changes in manufacturing, storage or transport conditions. The responsible employees must be trained in dealing with non-conforming products.

⎙ Control incoming and outgoing goods

4.1.3 Transport vehicles

Delivery and dispatch vehicles must be kept in a hygienic and tidy condition and show no signs of residual dirt. The driver and accompanying persons must wear appropriate clean clothing. Goods must not be harmed by clothing or handling.

The company must ensure that a high standard of cleanliness and hygiene is complied with on the freight areas of the vehicles in order to avoid attraction of vermin.

The goods to be transported must be loaded in a perfectly clean condition and show no signs of coarse dirt.

⎙ Checklist transport vehicles, temperature checklists, transport hygiene

4.1.4 [K.O.] Product temperature

The temperatures of goods that are subject to mandatory cooling regulations must be recorded and documented during the incoming goods inspection. If lower temperatures have been defined in the company and agreed with the supplier, they must be complied with and observed when receiving goods. The procedures must be designed in such a way that the temperature requirements are complied with at all times. The required product temperatures must be adhered to and may only deviate for a short period if this is required for reasons of practicality (e.g. during loading and unloading, during transport into the facility).

In the case of frozen food, the temperature throughout the food must be maintained at minus 18 °C or below. During unloading and putting into storage, short-term variations by a maximum of 3 °C are permitted (in accordance with **TLMV (German Frozen Food Ordinance)**).

Documentation of temperature

4.1.5 Staff rooms and sanitary facilities

Suitable changing rooms must be provided for employees and external visitors. Outdoor and protective clothing must be kept separate where required. Staff rooms and sanitary facilities must be kept clean and in good order, and only used for their designated purpose.

The rooms must be cleaned regularly. A cleaning must be documented.

📑 Cleaning documentation

4.1.6 Pest control

It must be ensured that a high level of cleanliness and hygiene is maintained in all work/storage areas in order to prevent the attraction of pests and vermin. Both in the operating rooms and in outdoor areas, precautionary measures must be taken to repel pests that adversely affect food. Appropriate measures for pest monitoring or, if necessary, for pest control must be introduced.

Within the implementation of pest monitoring and control, measures and qualifications of the user must comply with the legal requirements of the country as well as the particular product specifications. Monitoring and bait points need to be controlled at least every month by qualified staff, as long as no other control interval is determined on the basis of a risk assessment. In order to guarantee the safety of the food as well as that of the employees, suitable pest control methods and pesticides must be used. This pest control treatment must not jeopardise the safety of the products.

Permanent baiting (without infestation) using rodenticides (anticoagulants) is only permissible in exceptional cases if it is carried out strategically by a pest controller or professional operative (per the German **Hazardous Substances Ordinance** Annex I Number 3 Paragraph 3.4 (5) and (6)). A professional operative or pest controller must provide evidence of and document the conditions for each exceptional case individually via an annual risk analysis and risk assessment. Compliance with the measures for risk minimisation determined in the analysis must be guaranteed. In this case, only baits permitted for this purpose may be used and the bait points must be controlled at least once per month. Differing legal provisions may apply in other countries and must be complied with accordingly.

The documentation must contain at least the following information:

- Information on used products for pest prevention and control
- Date of treatment as well as the specification of the applied quantities
- Proof that the employees involved in pest control are suitably qualified (expertise required for the respective task)
- Checkpoint plans showing the positioning of monitor- and bait stations (also for temporary checkpoints)
- Records of pests found (findings)
- Measure plans in case of pest infestation

📑 Documentation on pest prevention and control, pest control plan, if applicable proof of qualification, if applicable contract with specialist companies

4.2 Storage

4.2.1 Technical/structural condition

Operating facilities in which food is handled or stored must be clean and properly maintained in accordance with **Regulation (EC) No. 852/2004 Appendix II** at all times. They must also be planned, designed, built and proportioned in such a way that the necessary level of cleaning and/or disinfection is possible and contamination is avoided or reduced to a minimum level.

The following requirements must be met:

- Floor coverings and wall surfaces must be kept in very good condition and must be easy to clean and disinfect when necessary.
- Ceilings (or roof interiors where there are no ceilings) and ceiling structures must be built and finished in such a way that the accumulation of dirt is avoided and condensation, undesired mould infestation and the flaking of material particles is kept to a minimum.
- Windows and other openings must be built in such a way that the accumulation of dirt is avoided. If they can be opened to the outside, they must be fitted where necessary with insect screens, which must be easy to remove for cleaning purposes.
- Doors must be easy to clean and disinfect when necessary. They must have a smooth, water-repellent surface.

Operating premises and facilities must be kept in an appropriate condition.

📋 Maintenance plan, documentation maintenance work

4.2.2 Room, equipment and plant hygiene

All rooms, facilities and machinery must be in a clean and hygienic condition. The accumulation of water in un-used spaces must be avoided. The transport containers and vehicles must be kept hygienically clean. Rooms must be protected against pest infestation by installing tightly sealed gates and doors. Delivered goods must also be checked for pest infestation and if necessary, appropriate measures must be introduced. Areas for storing pallets and barrels have to be cleaned on a regular basis.

A cleaning plan for work and storage areas (e.g. loading ramp) must be drawn up.

Storage rooms must be cleaned regularly in accordance with a cleaning plan; cleaning of the floor covering is particularly important (fruit and vegetables in accordance with the wet cleaning requirement). The frequency of cleaning is based on the work rhythm/restocking in the operating rooms/storage rooms.

Each company must have a hygiene checklist, which is displayed for all employees to see. Basic hygienic requirements and responsibilities must be laid out clearly in this list. The implementation of the requirements on this company checklist must be assessed (at least once a year). The results of these assessments must be documented and readily available.

📋 Cleaning plans, disinfection plans, hygiene checklist, inspection results, implementation of hygiene checklist

4.2.3 Ground clearance

⇒ 2.6 Ground clearance

4.2.4 Stock management

A systematic and comprehensible stock management system has to be in place (e.g. FIFO/FEFO). It can be quickly and unequivocally determined when which goods were stored. Each stored or temporarily kept product or packaging unit needs to be clearly identifiable. Storage conditions must not have any negative impact on product quality. A procedure which lays down the measures and steps to be taken in the case of a system failure or fault must be determined, and the relevant employees must be aware of the procedure. Furthermore there must be a procedure determined for the handling of blocked produce and goods that are not conform.

A batch-based storage system must be implemented. The batches must be labelled. The definition of a batch is a duty of stock management. Mixing of varieties may not occur.

The following information must be clearly documented using company records:

- Date of delivery
- Labelling
- Supplier
- Variety
- Quantity

A constantly updated list of all customers must be kept along with the quantity of products currently in storage on their behalf. The products must be allocated to the customers in the storage facilities.

📋 Documentation of storage, list of all suppliers and product quantities

4.2.5 Best-before date

It must be ensured that the best-before date is observed in all rooms. Regular inspection of the best-before date must be guaranteed for this purpose. Goods with an expired best-before date must be handled according the internal guidelines. A responsible employee must be named for this purpose.

4.2.6 Prerequisites for maintaining quality

Specific climatic conditions, such as temperature, humidity and other guidelines in accordance with the specifications for stored products, must be complied with in the rooms or fixtures where products or pieces of equipment are stored (particularly for potatoes, in the case of the rapid drying of moist tubers, wound healing, etc.).

Long-term storage

To avoid the occurrence of condensate, the changes in temperature need to be considered.

During storage, the state of the goods and the defined storage conditions must be controlled and documented regularly. Ethylene-sensitive fruit and vegetables (e.g. kiwis, cauliflower, Brussels sprouts, etc.) and potatoes must not be stored in close proximity to fruit and vegetables which produce a lot of ethylene (e.g. apples, nectarines, peaches, melons, etc.) in case of a longer storage.

When cold air is used in the storage of potatoes, the type-specific differences in the formation of reducing sugars need to be taken into account.

🗐 Documentation of the quality of goods and the storage conditions

4.3 Cold storage rooms

4.3.1 Technical/structural condition

⇒ 4.2.1 Technical/Structural condition

Operating rooms and facilities must be subject to maintenance in line with predefined written instructions. Maintenance work must be carried out in a hygienic and controlled manner and must not endanger food safety. All material that is used for maintenance and repair work need to be suitable for the purpose.

The maintenance program has to include at least the following elements:

- Transport systems (where present)
- Responsible employees (own employees or those from external companies)
- Frequency

It must be proven by documentation of maintenance work that the requirements listed above are met.

🗐 Documentation of the maintenance

4.3.2 Room, equipment and plant hygiene

⇒ 4.2.2 Room, equipment and plant hygiene

Mould growth must be avoided. If necessary, steps to eliminate mould must be implemented. It is also important to ensure that ice formation is kept to a minimum. The refrigeration units need to be serviced regularly and be in a hygienically sound condition.

4.3.3 Ground clearance

⇒ 2.6 Ground clearance

4.3.4 Stock management

⇒ 4.2.4 Stock management

4.3.5 [K.O.] Temperature recording and monitoring

Temperature recording and monitoring must be regulated in such a way that all product temperature requirements are met (⇒ 4.1.4 [K.O.] Product temperature). The product with the lowest temperature level determines the temperature for the entire storage room.

The operating temperature of any cooling equipment must be registered and documented. Furthermore, a procedure to be followed in the case of a technical fault must be laid down and acknowledged by the employees.

Long-term storage of potatoes

Separate records on climate control and climate development in the warehouse are necessary for potatoes. These records are to include

- Information on the changes in the temperature of the outside air
- Indoor air temperature
- Temperature of tubers
- Ventilation times
- Operation of ventilation equipment

🗐 Temperature-, climate documentation, temperature checklists, documentation of measures in case of non-conformities

4.3.6 [K.O.] Best-before date/use-by date

Compliance with the best-before date or use-by date must be observed in all rooms. Regular inspection of the best-before date/use-by date must be guaranteed for this purpose. Goods with an expired best-before date must be handled according to internal guidelines. Goods with an expired use-by date may not be distributed. A responsible employee must be named for this purpose.

4.3.7 Prerequisites for maintaining quality

⇒ 4.2.6 Prerequisites for maintaining quality

4.4 Frozen storage rooms

4.4.1 Technical/structural condition

⇒ 4.3.1 Technical/structural condition

4.4.2 Room, equipment and plant hygiene

⇒ 4.3.2 Room, equipment and plant hygiene

4.4.3 Ground clearance

⇒ 2.6 Ground clearance

4.4.4 Stock management

⇒ 4.2.4 Stock management

4.4.5 [K.O.] Temperature recording and monitoring

Temperature recording and monitoring must be managed in such a way that the product temperature requirements (⇒ 4.1.4 [K.O.] Product temperature) are met. The product with the lowest temperature level determines the temperature for the entire storage room.

The temperatures of each cold storage facility must be registered and documented. There must also be a defined procedure in place, with which the responsible employees are familiar in case of technical faults.

🗐 Self-assessment records, checklists, documentation of measures in the event of nonconformity, documentation of temperature

4.4.6 [K.O.] Best-before date

It must be ensured that the best-before date is observed in all rooms. Regular inspection of the best-before date must be guaranteed for this purpose. Goods with an expired best-before date must be handled according the internal guidelines. A responsible employee must be named for this purpose.

4.5 Product-specific criteria for the storage of potatoes (long-term storage)

4.5.1 Suitability of warehouse

The facilities for incoming goods must enable a product-oriented and careful receipt of goods from transport vehicles. The structural and technical layout of the warehouse must meet the requirements for gentle handling of potatoes.

4.5.2 Suitability of the equipment for incoming and outgoing goods

The number and length of drop heights at the supply terminals must be as low as possible. Furthermore, the passages for the flow of material, belt speed, rolling lines as well as protruding edges, corners and bolts need to be taken into consideration in order to minimize strain on the tubers.

5 Traceability and origin of goods

5.1 Methods and control of traceability

5.1.1 [K.O.] Methods of traceability

An identification and registration system that is comprehensible to third parties shall be maintained. There must be evidence of the transparency of the goods flow. Scheme participants must establish traceability systems and

processes in accordance with **Regulation (EC) No. 178/2002**. The scheme participant is obliged to follow a labelling and registration system which is comprehensible to a third party. This labelling and registration system enables to clearly make a statement where, i.e. on which transport vehicle or in which (transshipment) warehouse, the goods are located during the logistics process.

It must be ensured that the information on traceability is available to QS within 24 hours after contact has been made with the scheme participant.

Internal traceability processes have to be structured in such a way that the appropriate information can be compiled within four hours.

The following customer and supplier information is relevant:

- Name, address and telephone number
- Type and quantity of shipped products
- Delivery/transfer date
- Batch and/or lot number (if issued during the production or picking process)
- Batch/lot numbers on the overpackaging of bulk goods

Furthermore, a customer list must be available.

⬜ Batch labelling, documents for incoming goods (e.g. CMR (waybills), delivery notes, incoming goods inspection) and documents for outgoing goods, traceability system

5.1.2 [K.O.] Traceability check

The traceability of all goods must be checked using an example from production or shipment in accordance with **Reg. (EC) No. 178/2002**. The system must be tested at least once a year and the results need to be documented.

⬜ Traceability system test

6 Definitions

6.1 Explanation of symbols

[K.O.] This symbol marks K.O. criteria.

References to other applicable documents are **marked in bold**.

⬜ This symbol means: A written confirmation must be provided. Next to this symbol also documents are listed that can be used as evidence. All (also digital) control - and documentation systems, which proof that the requirements are fulfilled, can be used.

⇒ marks references to other guideline chapters.

Notes are marked with ***Note:*** *text in italics*.

6.2 Abbreviations

CCP	Critical Control Point
FEFO	First Expired - First Out
FIFO	First In - First Out
GHP	Good Hygiene Practice
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis and Critical Control Points
K.O.	Knock out

6.3 Terms and definitions

- HACCP (Hazard Analysis and Critical Control Point)

    A system which identifies, evaluates and controls hazards which are significant for food safety.

- HACCP Concept

  Documentation consistent with the principles of HACCP to ensure control of hazards which are significant for food safety.

- Logistics companies

  As defined by this guideline, logistics companies are companies, which logistically handle – e.g. which transport, ship, load, unload and if necessary commission – fresh, prepared and/or processed fruit, vegetables and potatoes. This comprises all activities involved in delivery per truck (road transport), short-term storage for the purpose of transshipment of the goods during delivery, the long-term storage and the order picking. Logistics companies which also pack, trade and/or prepare/process goods are categorised as wholesale (first-line merchants or trading partners) or preparing/processing companies.

- Long-term Storage

  Long-term storage includes any types of storage that goes beyond the storage for the purpose of stock turnover.

- QS-produce

  Products that are produced or marketed according to the requirements of the QS-scheme in a QS certified company.

You find a listing of general terms and definitions in the **Guideline General Requirements**.

Revision Information Version 01.01.2024

Criterion	Changes	Date of change
2.1.1 General business data	**Addition:** If the rooms are shared by several companies, all rooms belonging to the company must be identified in an operational plan. A list of the goods vehicles used for transport must also be prepared.	01.01.2024
2.1.10 Commissioning of logistics companies/subcontractors	**Renaming** of the requirement; before Commissioning of logistics companies (subcontractors) **Restructuring**: Move of the requirement to chapter 2 General requirements. **Clarification:** In the case of short-term commissioning of additional logistics companies for the transport of QS goods within the framework of individual daily contracts (e.g.in the case of high seasonal volumes, goods from the spot market), this requirement may be deviated from. In this case, the companies must be committed to complying with the QS requirements (⇒ Logistics Guideline 2.3, 3, 5).	01.01.2024
2.2.1 Self-assessment system	**Restructuring**: Inclusion of content on responsibilities; formerly from requirement 2.2.2 Responsibilities **Clarification:** Basis and prerequisite for the implementation of a HACCP system are basic hygiene measures, including the codes of practice for good hygiene practice (GHP) and good manufacturing practice (GMP).	01.01.2024
2.2.2 Review of the self-assessment system	**Renaming** of the requirement; before Responsibilities **Restructuring**: Inclusion of contents for verification from requirement 2.2.1 Self-assessment system **Clarification**: Documentation appropriate to the type and size (depending on the products handled) of the business must be kept to demonstrate that the measures listed in point 2.2.1 are being applied. The implementation of the HACCP con-	01.01.2024

Criterion	Changes	Date of change
	cept must be reviewed (verified) at least once a year (approx. every 12 months).	
2.6 Ground clearance	**Restructuring:** Superior insertion in chapter 2. General requirements	01.01.2024
4.1.2 [K.O.] Incoming goods in-spection	**Clarification:** If required, the incoming goods inspection must be adjusted to any changes in manufacturing, storage or transport conditions. The responsible employees must be trained in dealing with non-conforming products.	01.01.2024
4.1.6 Pest control	**Addition:** Both in the operating rooms and *in outdoor areas*, precautionary measures must be taken to repel pests that adversely affect food.	01.01.2024

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