FSSC 22000

FOOD SAFETY SYSTEM CERTIFICATION 22000

GUIDANCE DOCUMENT: GAP ANALYSIS NEN/NTA 8059:2016 VS. ISO/TS 22002-5:2019

Version 5 | December 2019

SUMMARY OF MAIN CHANGES

1. **Terminology**
   - The terminology has been aligned with other ISO/TS standards
   - Goods is used where previously product, food, etc. were used
   - Logistic Units is used where previously trucks, etc. were used
   - Loose goods changed to unpacked goods

2. **Content**
   - Scope is aligned with ISO/TS 22003:2013 Category G.

3. **New documentation requirements**
   - 4.5.6 How to manage loads in transit (when controlled conditions apply)
   - 4.3.3 Maintenance programmes
   - 4.5.1 Effective Stock Rotation system
   - 4.5.7 Procedure for customer returns and rejections, including the handling of goods close to expiry dates
   - 4.6.4.4 Information on Pest control inspections
   - 4.8 Documented information of withdrawal/recall notifications
   - Removed: requirement for documented information of removal and destruction of waste.

4. **New requirements**
   - Nonconforming goods, damages and returns

The table in this document lists the main changes. It contains only the requirement or part of the requirement that has changed (i.e. not the full requirement). Where only minor rewording or renumbering has taken place, this is not taken up in the table.

Green = new elements

Blue = significant rewording

Red = significant deletions

NEN/NTA 8059:2016		ISO/TS 22002-5:2019	
Clause #	**Text**	**Clause #**	**Text**
1. Scope		**1. Scope**	In this document, transport and storage is aligned with ISO/TS 22003:2013, Annex A, Category G. This document includes all food and feed products and food packaging and packaging materials. Live animals are excluded from the scope of this document except when intended for direct consumption, e.g. molluscs, crustaceans and live fish.
3.1	bulk		
3.6	condition control		
3.7	contaminant		
		3.7	**Goods** Food, feed, animal food and packaging transported and stored within the food chain
3.10	distribution		
3.11	FEFO		
3.12	FIFO		
3.13	Food contact equipment		
3.14	Food defense		
3.17	integrity		
3.18	label		
3.21	Materials		
3.22	Pre-packed goods		
3.24	specification		
3.27	traceability		
3.30	vehicle		

4.1 General Requirements	Categorization of product groups: - Bulk - Pre-packed - Loose goods d) radiological contamination (e.g. excessive use of radiation to prevent microbiological growth); e) physical damage (e.g. breakage, puncturing of packaging, water damage);	**4.1 General Requirements**	Categorization of product groups: - Unpacked goods - Packed goods
4.2.1 External lay-out	Sites shall be of durable construction to minimize the likelihood of food contamination. Sites shall be of durable construction which presents no hazard to the product. EXAMPLE An example of 'durable construction' is self-draining roofs which do not leak. Canopies should be provided over loading areas. Where canopies are provided, they shall be easy to clean and be constructed in a manner that deters birds. The canopies should be of adequate size to protect product, packaging or other materials during handling in adverse weather conditions.	**4.2.1 External lay-out**	Loading areas shall be constructed so as to protect goods during adverse weather conditions, be easy to clean and to deter birds and other pests.
4.2.2.1 Internal design, layout and traffic patterns	Internal layouts shall be designed, constructed and maintained to facilitate good hygiene supported by transport and storage practices.	**4.2.2.1 Internal design, layout and traffic patterns**	Internal layouts shall be designed, constructed and maintained to facilitate good hygiene practices and to minimize the likelihood of contamination (e.g. leakage).
4.2.2.1 Internal design, layout and traffic patterns	EXAMPLE: Examples of physical separation include walls, barriers or partitions, or sufficient distance to minimize risk.		

4.2.3.1 Utilities General Requirements	Utilities' quality shall be monitored to perform maintenance and cleaning accordingly to minimize product contamination risk.	**4.2.3.1 Utilities General Requirements**	Maintenance and service activities shall be organized to ensure that food safety is not compromised.
4.2.3.2 water supply	The supply of potable water shall be sufficient to meet the needs of the process(es).	**4.2.3.2 water supply**	The supply of water shall be suitable for the intended use and shall be sufficient to meet the needs of the process(es)
	Where the warehouse has its own eating room and toilet rooms, potable water shall be supplied to the eating room and adequate hand washing facilities shall be provided in each toilet complex.		Where canteen and toilet facilities are provided, potable water shall be provided for drinking water and hand washing.
	Water in (indirect) contact with products or product surfaces, shall meet specified quality and microbiological requirements relevant to the product.		
	Where water supplies are chlorinated, checks shall ensure that the residual chlorine level at the point of use remains within limits if required by relevant specifications for the intended use.		Where the organization treats the water supply (e.g. chlorination), checks shall ensure that the water is suitable for the intended use.
	NOTE Non-potable water may be used for washing down warehouse surrounds, washing down external sumps and external drains, automatic fire fighting systems, flushing toilets and urinals, cooling towers and condensers		Non-potable water may be used, for example, for washing down warehouse surrounds, washing down external pumps and external drains, the automatic fire fighting system, flushing toilets and urinals, the cooling tower and the condenser.
4.2.3.3 Chemicals and processing aids	c) registered by the relevant regulatory authority where applicable;		
4.2.3.4 Air quality and ventilation	Where temperature and/or other conditions (e.g. filtration, humidity, microbiology of air) are deemed	**4.2.3.4 Air quality and ventilation**	

	critical by the organization, a control system shall be put in place and monitored. Protocols for air quality monitoring and control shall be established in areas where products which support the growth or survival of microorganisms are exposed. Ventilation (natural or mechanical) shall be provided to remove excess or unwanted steam, dust and odours,and to facilitate drying after wet cleaning. When working with vulnerable unpacked products, room air supply quality shall be controlled to minimize risk from airborne microbiological contamination. Exterior air intake ports shall be examined periodically for physical integrity		Ventilation (natural or mechanical) shall be adequate to remove excess or unwanted steam, dust and odours, and to facilitate drying after wet cleaning. When working with vulnerable unpacked products, room air supply quality shall be controlled to minimize risk from airborne contamination. Exterior air intake ports shall be examined periodically for physical integrity. Systems shall be cleaned and maintained as required.
4.2.3.5 Gases and compressed air	Compressed air, carbon dioxide, nitrogen and other gas systems used in processes of transport and storage (e.g. loading/unloading of bulk goods) shall be constructed and maintained so as to prevent contamination. Gases intended for direct or product contact		Gases and compressed air intended for food contact
4.2.3.6 Lighting	The lighting provided (natural or artificial) shall allow personnel to operate in a hygienic manner. Where full protection cannot be provided, the glass-management system shall take this into account	**4.2.3.6 Light**	Light fixtures should be protected. Where full protection is not provided, there shall be a procedure in place for the management of glass and/or plastic.

		4.5.6 Controlled conditions	The organization shall ensure appropriate conditions are maintained for food safety. Where temperature and/or other conditions (e.g. filtration, humidity, microbiology of air) are deemed critical by the organization, a control system shall be put in place and monitored.
4.2.4 Temperature control and controlled conditions	A system shall be in place to enable the operator to be made aware if the conditions deviate from the specified limits, and take appropriate measures. Where settings can be adjusted, measures shall be in place to verify controlled-condition settings of vehicles prior to dispatch. Vehicles and logistic units transporting temperature-controlled products shall be pre-cooled to the required temperature before loading or the required air temperature shall be achieved within a defined time of loading commensurate with maintaining the specified product temperature. Equipment for controlled conditions shall be operational at all times of the unit's operation, and the conditions shall be checked at regular intervals during transit. In the case of equipment failure, procedures shall be in place to establish the safety status of the product, prior to release to the customer	**4.5.6 Controlled conditions**	A system shall be in place to alert the relevant personnel if the conditions deviate from the specified limits. Following the alert, appropriate corrections and corrective action shall be taken. Where settings can be adjusted, measures shall be in place to verify the controlled-condition settings of the logistic unit. Logistic units transporting goods under controlled conditions shall either: — ensure the conditions are achieved prior to loading; or — achieve the required conditions after loading without compromising the integrity of the goods. Documented information on how to manage the load in transit shall be available, including actions to be taken in the event of a failure to achieve the specified conditions during transit
4.2.5.1 Equipment General	Food contact equipment shall be designed and constructed to facilitate cleaning, disinfection and maintenance of transport and storage facilities. Contact surfaces shall not affect, or be affected by, the intended product or cleaning system. Food contact equipment	**4.3.1 Equipment General**	Equipment shall be designed and constructed to facilitate maintenance, cleaning and, where necessary, disinfection. Food contact equipment shall be constructed of suitable and durable materials able to withstand repeated cleaning.

	shall be constructed of durable materials able to resist repeated cleaning.		Equipment shall be located to facilitate cleaning, permit access for monitoring activities and maintenance.
4.2.5.3 Preventive and corrective maintenance	A preventive maintenance programme shall be in place. The preventive maintenance programme shall include all equipment used to monitor and/or control food safety hazards. Corrective maintenance shall be carried out in such a way that equipment is not at risk of contamination. Maintenance requests which impact product safety shall be given priority. Temporary fixes shall not put product safety at risk. A request for replacement by a permanent repair shall be included in the maintenance schedule. Lubricants shall be food grade where there is a risk of direct contact with the product. The procedure for releasing maintained equipment back to operation shall include clean up, disinfection, where specified in process cleaning procedures, and pre-use inspection. PRPs for transport and storage shall apply to maintenance areas and maintenance activities. Maintenance personnel shall be trained in the product hazards associated with their activities.	**4.3.3 Maintenance**	A planned maintenance programme shall be in place and shall include all equipment used to monitor and/or control food safety hazards. Maintenance programmes shall be documented. Maintenance activities, including any temporary repairs, shall be carried out in such a way that equipment is not at risk of contamination. Maintenance personnel shall be made aware of the food safety hazards associated with their activities. The procedure for releasing equipment back into operation following maintenance shall include, if required, cleaning, disinfection and inspection pre-use. Lubricants shall be food grade where there is a potential risk of direct contact with the goods.
4.3 Management of Purchased materials 4.3.1 General requirements	Purchasing of materials which impact food safety shall be controlled to ensure that the suppliers used have the capability to meet the specified requirements. The conformance of incoming materials to specified purchase requirements shall be verified. There shall be a defined process for the selection, approval and monitoring of suppliers.	**4.4 Management of purchased materials and services 4.4.1 General requirements**	Purchased materials, services and subcontracted activities that impact food safety shall be controlled to ensure that specified requirements are met. There shall be a defined process for the selection, approval and monitoring of suppliers.
4.3.2 Incoming materials	Delivery vehicles shall be checked prior to, and during, unloading to verify that the quality and safety of the materials have been maintained during transit (e.g. integrity of seals, freedom from infestation, existence of documented information on temperature and	**4.4.2 Incoming materials**	The conformity of incoming materials to specified purchase requirements shall be verified. The method of verification shall be documented. Nonconforming materials shall be controlled to prevent their unintended use.

	conditions). Materials shall be inspected or covered by certificate of laboratory analysis (CoA) to verify conformity with specified requirements prior to acceptance or use. The method of verification shall be documented. NOTE The inspection frequency and scope can be based on the hazard presented by the material and the assessment of the specific suppliers. Materials which do not conform to relevant specifications shall be handled under a documented procedure which ensures they are prevented from unintended use. Access points to bulk material receiving lines shall be identified, capped and locked. Discharge into such systems shall take place only after approval and verification of the material to be received. A separate, secure storage area shall be provided for waste materials, leaning/disinfection materials, chemicals (including cleaning agents, lubricants, and pesticides) and other hazardous substances. A separate area or other means of segregating materials identified as non-conforming shall be provided. When necessary, temperature and conditions shall be maintained and controlled.		
4.4.1 Vehicles and logistic units	Where bulk tankers are used for transporting food or other vulnerable products, documented information of the vehicle load history and cleaning interventions shall be maintained.	**4.5 Transport and storage operations** **4.5.1 General**	Where logistic units are used for transporting goods, documented information of the logistic unit load history and cleaning shall be retained. An effective stock rotation system shall be documented and implemented. The integrity of goods in transport and storage should be confirmed at an appropriate frequency.
4.4.2 Loading	If there are no specific customer requirements, specified stock rotation systems (e.g. FIFO/FEFO) shall be observed. Exceptions from stock rotation systems (e.g.	**4.5.3 Loading**	The handling of expired stock shall be managed in accordance with 4.5.7

	for agricultural crop) shall be justified and documented. The handling of expired stock shall be defined.		
		4.5.7 Nonconforming goods, damages and returns	Procedures shall be in place to ensure all nonconforming goods are clearly identified and, where necessary, segregated until the goods are evaluated for release or disposal. Goods being held prior to evaluation shall be stored in a manner that minimizes the deterioration or contamination of the goods. The organization shall define a procedure for customer returns and rejections, including the handling of goods close to expiry dates.
		4.6.1 Personnel hygiene **4.6.1.1 General requirements**	All personnel, visitors and contractors shall be required to conform to the documented requirements. Domestic and other animals shall be prohibited from the storage premises and logistic units.
4.5.1.2 Personnel hygiene facilities and toilets		**4.6.1.2 Personnel facilities**	Suitably located and clearly designated personnel hygiene facilities shall be provided by the organization. Toilet facilities shall not open directly on to packing or storage areas.
4.5.1.4 Workwear and protective clothing	Personnel who work in, or enter into, areas where unpacked or loose products and/or materials are handled, shall wear work clothing that is fit for purpose, clean and in good condition. This workwear shall: a) be free from rips, tears or fraying material; b) not have buttons; c) not have outside pockets above waist level; d) be equipped with zips or press stud fastenings. Workwear shall be laundered to standards and at intervals suitable for the intended use of the garments. If necessary, workwear shall provide adequate coverage to ensure that hair, perspiration, etc. cannot	**4.6.1.4 Workwear and protective clothing**	Personnel who work in, or enter into, areas where goods are handled, shall use workwear that is fit for purpose, clean and in good condition. Personal protective equipment, where required, shall be designed to prevent contamination and shall be maintained in hygienic condition.

	contaminate the product. Personal protective equipment, where required, shall be designed to prevent product contamination and maintained in hygienic condition.		
4.5.1.5 Illness and injuries	Employees shall be required to report conditions to management for possible exclusion from food-handling areas, including, but not limited to: jaundice, diarrhea, vomiting, fever, sore throat with fever, visibly infected skin lesions (boils, cuts or sores) and discharges from the ear, eye or nose. In food-handling areas, personnel with wounds or burns shall be required to cover them with specified dressings. Any lost dressing shall be reported to supervision immediately	**4.6.1.5 Illness and injuries**	Where permitted by law, personnel, visitors and contractors shall be required to report symptoms of communicable diseases to a designated person for a decision on their possible exclusion from food handling areas. Personnel with wounds or burns shall be required to cover them with specified dressings. Any lost dressing shall be reported.
4.5.1.7 Personal behaviour	a) permissibility of smoking, vaping (e-cigarettes), eating, chewing in designated areas only; The following apply only to non-pre-packed goods: c) prohibition of carrying of writing implements behind the ears;	**4.6.1.7 Personal behaviour**	the permissibility of eating, drinking, smoking and vaping (e-cigarettes), and chewing in designated areas only;
4.5.2.2 Cleaning and disinfection programmes	Cleaning and disinfection programmes shall be validated, established and assessed for effectiveness by the organization to ensure that ...	**4.6.2.2 Cleaning and disinfection programmes**	The organization shall establish cleaning and disinfection programmes. The organization shall assess the effectiveness of the programmes to ensure that ...
		4.6.3 Waste disposal and recycling **4.6.3.1 General requirements**	Where required, a separate, designated storage area shall be provided for waste materials.

4.5.3.2 Waste management and removal	Provision shall be made for the segregation, storage and removal of waste including recycling materials. Accumulation of waste shall not be allowed in transport and storage areas. Removal frequencies shall be managed to avoid accumulation, with regular removal. Removal and destruction shall be carried out by approved disposal contractors. The organization shall retain documented information of removal and destruction of waste. Where company-owned or contracted vehicles are used for the collection of waste materials from the customer for recycling or disposal purposes, there shall be adequate segregation from products being transported to prevent contamination of product and its packaging. Vehicles shall be suitably cleaned before re-use for transporting products. When necessary, temperature and conditions shall be maintained and controlled.	**4.6.3.2 Waste management and removal**	Provision shall be made for the segregation, storage and removal of waste, including recycling materials. Waste shall be removed at appropriate frequencies to avoid accumulation. The removal and destruction of waste shall be carried out by approved disposal contractors.
4.5.3.3 Containers for waste and inedible or hazardous substances		**4.6.3.3 Hazardous substances**	
4.5.4 Pest control **4.5.4.3 Preventing access**	Sites, vehicles and logistic units shall be maintained in good repair. Holes, drains and other potential pest access points shall be sealed.		
4.5.4.4 Harbourage and infestations	Where outside space is used for storage, stored items shall be protected from pest damage (e.g. bird droppings).		

4.5.4.5 Monitoring and detection	If relevant, pest-monitoring programmes shall include the placing of detectors and traps in key sites to identify pest activity. A map of detectors and traps shall be maintained. The detectors and traps shall be inspected at a frequency intended to identify new pest activity. The results of inspections shall be analysed to identify trends.	**4.6.4.4 Monitoring and detections**	If relevant, pest-monitoring programmes shall include the placing of detectors and traps to identify pest activity. Where a pest control programme is in place at the premises, it shall be provided by a qualified person. A map of all traps or devices in use on the premises shall be maintained. The traps or devices shall be inspected at an appropriate frequency to ensure that pest activity is under control. Documented information of inspections shall be retained and analysed to identify any trends.

4.6 Product identification	The organization shall retain information on goods delivered to its customers until the latest best before date or use-by date of the goods shipped. The information shall include:
	a) product(s) identification and quantity(ies);
	b) customer identification;
	c) date of delivery;
	d) identifier(s) of logistic unit(s);
	e) documented information regarding temperature profile during storage/transport if applicable.
		4.7 Goods identification	The organization shall retain information on the delivery of goods.
			The information shall include:
			— the identification of the goods and quantity(ies);
			— the identification of the goods received;
			— the date of delivery;
			— the identifier(s) of logistic unit(s);
			— documented information regarding the temperature and/or other controlled conditions profile during storage/transport, if applicable.

4.7 Product recall	Procedures shall be in place to ensure that products failing to meet required food safety standards can be identified, located and removed from all necessary points of the supply chain. A list of key contacts in the event of a recall shall be maintained. Where products are withdrawn due to immediate health hazards, the safety of other products stored and/or distributed under the same conditions shall be evaluated.	**4.8 Withdrawal/ recall of goods**	A procedure shall be in place for managing the withdrawal/recall of goods. The procedure shall be capable of being operated at any time, and shall include: — provisions for stock location, logistics, recovery, storage and disposal; — a list of key contacts in the event of a withdrawal/recall. Documented information of notifications received or issued shall be retained. Withdrawn/recalled goods still under storage/transport operator responsibility (in storage or transporting units) shall be secured or held under control until the disposition of the goods is decided by the owner/manufacturer.

4.8 Food defense	Deletion of 4.8.1 to 4.8.4	**4.9 Safeguarding of goods**	The organization shall put in place appropriate measures to protect the goods from intentional acts, that may include, but are not limited to: — sabotage, terrorism; — mislabeling, counterfeiting, tampering; — vandalism, theft. A procedure shall be in place for the management of access control to the facilities, logistic units and confidential information. Incoming and outgoing goods shall be checked to verify that the goods have not been compromised.