



## HACCP CERTIFICATION REGULATIONS 2006

### Article 1

These certification regulations apply to accredited certification bodies that have subscribed to the (Dutch) National Board of Experts HACCP (NBE-HACCP).

In addition these regulations also apply to food processing businesses that receive assessment by these certification bodies in order to be granted a HACCP certificate.

Certification bodies that are particularly accredited for this purpose issue HACCP certificates.

The certificate provides buyers, consumers and other parties with justified assurance that the management and control of the safety of the food product meet the Requirements for a HACCP based Food Safety System and, in by doing so, the legislative/regulatory requirements with respect to HACCP.

The overall basic requirements for hygiene, the GMP requirements, form part of these certification criteria. In most cases, these GMP requirements are mandatory by national legislation.

### Article 2

The NBE-HACCP is authorised to decide on admitting certification bodies that are recognised by other accreditation bodies then the Dutch Council for Accreditation.

Before admission is granted proof must be provided that this accreditation is comparable to the accreditation by the Dutch Council for Accreditation, at the discretion of the NBE-HACCP.

### Article 3

The certification bodies are responsible for the full application of the certification scheme and have to observe the regulations and directives issued by the NBE-HACCP.

### Article 4

Where these regulations do not stipulate any other requirements with respect to the HACCP certification process, the certification bodies have to apply the procedures set in force for the certification of quality systems, that are accredited on the basis of EN 45011 or ISO/IEC Guide 65, excepting article 3.3. This article is replaced by article 5.3 of ISO/IEC Guide 66:1998.

With the information/application phase of the certification process, these regulations have to be submitted by the certification body to anyone requesting HACCP certification in accordance with clause 8.1.1 of EN 45011:1998 and ISO/IEC Guide 65:1996.

Where these regulations do not stipulate any other requirements with respect to the certification process, the certification bodies that are accredited on the basis of EN 45011 or ISO/IEC Guide 65, have to apply the procedures set in force for product certification systems.



## Article 5

The certification bodies are obliged to apply the HACCP certification scheme as established by the NBE-HACCP. The scheme contains the certification criteria, methods of examination, the requirements for certification bodies with respect to the scope of activities, expertise and certification personnel (e.g. auditors and decision makers) and the procedures with regards to audits and their frequency.

With regards to non conformities revealed, certification bodies are required to establish and maintain criteria for application of critical and non-critical non conformities, in accordance with the specifications in the EA and/or IAF guidelines pertaining to EN 45011 or ISO/IEC Guide 65.

Only food operating businesses where no critical non conformities have been revealed in their HACCP system, can qualify for granting the HACCP certificate.

HACCP certificates may only be issued on the basis of the actual status of the HACCP system of the food operating business and not on the basis of proposed or expected measures.

## Article 6

The certification bodies must employ proven expertise and experience at three levels:

1 audit team:

The requirements required in respect of auditors and the audit team are stipulated in the document *Requirements for Certification Bodies concerning scope, expertise and certification personnel*.

2 staff:

The certification body is required to appoint at least one officer who is assigned the following duties:

- conduct of the contract review
- selection, training and informing/instruction (briefing) of audit teams
- participation in Harmonisation Committee discussions carried out by certification bodies
- central point of contact for the NBE-HACCP.

The (collective) requirements demanded of this officer are that he/she must:

- be employed by the certification body (no on-the-job contracting; not necessarily full-time)
- meet the requirements with respect to 'lead auditor', as specified in the aforementioned *Requirements for Certification Bodies concerning scope, expertise and certification personnel*.
- have a minimum of five years' working experience in the relevant sector in one or more of the following 'sensitive' sectors:
  - primary animal products
  - cattle breeding
  - other primary sectors
  - egg-production and egg products
  - chopped fruit and vegetables
  - meat and meat products (unpacked and refrigerated)
  - fish and shellfish
  - dairy products.

For certification bodies which have only been accredited for 'other primary sectors', only the first three 'sensitive' sectors apply. In this case, other 'sensitive' sectors are not taken into consideration.



### 3 decision maker(s):

The decision maker(s), responsible for granting, maintaining, extending, suspending and withdrawing HACCP certificates is/are required to satisfy each of the following criteria:

- be employed by the certification body (no on-the-job contracting) or be an independent panel of (wholly or partially external) experts, which is an integral part of the organisational structure of the certifying body.
- meet the requirements for 'lead auditor', as specified in the aforementioned
- have a minimum of five years' working experience in the relevant sector in one or more of the following 'sensitive' sectors:
  - primary animal products
  - cattle breeding
  - other primary sectors
  - egg-production and egg products
  - chopped fruit and vegetables
  - meat and meat products (unpacked and refrigerated)
  - fish and shellfish
  - dairy products.

For certification bodies which have only been accredited for 'other primary sector', only the first three 'sensitive' sectors apply. In this case, other 'sensitive' sectors are not considered.

NB: The decision maker(s) and the staff officer ('HACCP co-ordinator') may be one and the same person, but may not participate in the audit team that has carried out the assessment in question.

### Article 7

The period of the contract between the certification body and the food-processing organisation shall last for 3 years. Reassessment, which takes place on expiration of these three years, is conducted in accordance with the initial assessment. By definition, during the initial certification period of three years a regime of semi-annual surveillance's will be in force. After three years the certifying body can transfer to a regime of annual surveillance's under the following conditions:

- there are no open non-conformities;
- no new non conformities have been revealed with the entire reassessment;
- adherence to the strict precondition of notification of changes in the HACCP system

During the first period of three years, changes in the system of semi-annual surveillance's may only be made under the following conditions:

- at least two semi-annual surveillance's have been conducted following the initial certification audit;
- all CCPs and the technical specification (PRP-requirements) have been assessed;
- all production lines and all sites have been assessed;
- no new non conformities are revealed during the most recent audit and there are no open non conformities;
- the certification body documents the evaluation of above-mentioned conditions;
- the condition for notifications of any changes in the HACCP system, activities and
- locations by the food processing business is strictly adhered to.



### Article 8

The certification body is required to apply the Calculation Model in the Rules for Time Allocation with respect to HACCP Audits, for determining the minimum auditor days for the initial certification audit, surveillance's and the re-assessment.

The Calculation Model is enclosed as Appendix I to these HACCP certification regulations

### Article 9

- During the initial assessment, the certification body is required to assess whether all Critical Control Points (CCPs) have been identified and are being monitored.  
A number of CCPs will be investigated with sufficient depth as much as possible at processes in action for implementation in practice.
- The initial investigation (on site certification audit) will be conducted in accordance with the two phase methodology as pointed out in ISO/IEC Guide 66/1998, article 5.3. Both phases are to be conducted at the company site.
- During Phase 1 the audit team will investigate the system documentation, especially the process, thoroughness and correctness of the hazard analysis and HACCP-analysis (risk), the HACCP-plan and the validation of this plan. The Phase I investigation will consist of a documentation investigation, a company survey and a planning of the Phase II investigation.

1) The audit team will examine whether – seen the activities of the organisation - all CCPs have been identified and whether all CCPs are being controlled as well as being monitored.

2) If the organisation has defined an inordinate number of CCPs, the certification body is required to make a precise assessment of the level of expertise within the organisation-  
In the event of an inordinate number of CCPs being identified, the HACCP analysis has most likely been carried out with an insufficient level of expertise and a major non-conformity is to be revealed. Before the start of the certification audit at-site, the organisation is required to initiate a modified HACCP analysis with an acceptable number of CCPs and to make changes to the HACCP system (including the documentation).

3) After Phase I (if necessary, following any additional measures as indicated under 2), the audit team conducts a (risk) analysis of the CCPs identified by the organisation and selects those CCPs (nature and number) for which a more in-depth assessment is necessary on site. On the basis of this in-depth assessment of the CCPs, a sound judgement shall be provided with respect to the conformity of the organisation to the HACCP criteria.

4) As an integral part of the Phase I investigation the audit team will conduct an inspection at the site. During the on-site inspection the implementation of the 'Requirements' are assessed. Any non conformities with regard to GMP/GHP and or the technical specification for food processing: the prerequisite program are to be reported specifically. The report of the Phase 1 investigation must show which elements of the prerequisite program are assessed and to what extent the requirements are fulfilled.

5) Information or data of the hazard analysis and the HACCP-analysis, the validation and the companies HACCP-plan as well as the validation of the CCP's selected by the audit team are to be reported in a thorough and in-depth report.

During the following Phase-II-investigation the audit team will judge the implementation of the Food Safety System.



This assessment will also include a check if any non-conformities, reported in Phase I during the on-site inspection, are discontinued and arrangements to the Food Safety System to do so, are assessed. If necessary the HACCP analysis will be judged again whether it sufficiently encompasses the in practice occurring potential dangers.

During surveillance visits the implementation of the system and effective control of the processes/products will be reviewed by sampling. In the three year period ALL CCPs shall be assessed with full depth. However, by doing so, the certifying body must take into account new circumstances and new CCPs.

The report with regard to any information or data of the hazard analysis and the HACCP-analysis which is drawn up during the initial investigation, as well as the CCPs assessed, has to be updated after every audit or assessment.

All sites of the certified legal entity shall be audited at least once during the three-year period, regardless of the absence of CCPs.

#### **Article 10**

During each assessment, the certification body is required to investigate the handling of complaints and any writings to relevant governmental inspection bodies that have been registered. Any complaints on the part of the authorities, related to the HACCP system can therefore provide a better insight into the functioning of the HACCP system.

#### **Article 11**

Organisations may not display the HACCP certification logo or mention possession of a HACCP certificate on their products.

#### **Article 12**

In the event of the relevant documents (certification scheme) being changed, organisations will be given 6 months' time of grace to adapt to the implementation of the new requirements, unless the legal regulations stipulate a different transition period.

#### **Article 13**

At least once per year, the certification bodies are obliged to provide the NBE-HACCP with all the information relating to the nature, the content and the functioning of the HACCP scheme. This information shall be made anonymous so that confidentiality with respect to organisations is assured. The information required by the NBE-HACCP pertaining to the preceding year is provided in written format no later than April 1st.

#### **Article 14**

The certification bodies are required to ensure that the regulations, which are decided by the NBE-HACCP and accepted by the certification bodies, are established, authorised and included in their existing system documentation within a period of 2 months.

Certification bodies are required to control these documents according to their own document control procedures.

#### **Article 15**

New information or changes with regards to the HACCP certification system are to be communicated by the certification bodies to those parties involved, such as certificate holders and HACCP auditors (auditors and experts), within a period of 2 months.



### **Article 16**

If required by certification bodies or by organisations, the NBE-HACCP can be called to intervene in the event of different opinions in the interpretation of the certification scheme. The NBE-HACCP will however not make any judgements with regards to individual disputes or appeals. The appeal regulations of the certification body are applicable to these disputes or appeals.

### **Article 17**

The audit report on the status of the HACCP system will comply with the extensive method which basics are set out in Appendix II. Application of this model is required for all assessments, including surveillance's. The report should show a faithful representation.

### **Article 18**

The Dutch National Board of Experts HACCP approved these regulations on 15 June 2006

Appendix 1: 'Rules for Time Allocation with respect to HACCP Audits'

Appendix II: Basics for the audit report including the report format technical specification



## Appendix 1 to HACCP Certification Regulations 2006

### Time allocation for HACCP Audits

The basis is formed by a table (Table 1) in which is indicated the minimum number of auditor-days, dependent on the total number of employees involved within the scope of the audit, together with four categories of activities of the company concerned. The total number of employees is the total number of employees on day shift plus the total number of employees in the largest shift (all expressed in full-time equivalents (FTEs)).

The number of auditor-days shown is applicable to initial audits. This basic table is applicable to the simple situation of a company with one group of products, one location and a low level of risk.

TABLE 1 - Minimum number of auditor-days

Number of employees (FTEs)	Initial audit - auditor-days			
	Category			
	A	B	C	D
1-19	2.5	2	1.5	1.5
20-29	3	2.5	2.0	1.5
30-59	4	3.5	2.5	2
60-100	5	4	3.5	3
100-250	6	5	4.5	4
250-500	8	7	6	5
500-1000	10	9	7	6

N.B. The time is shown in auditor-days; the minimum length of an auditor-day is 8 hours!



**Explanation:**

**Jobs:**

Calculated is the total number of employees that are involved within the scope of the audit of the organization.

Considered as employees are not only those employed permanently, but also hired-in/temporary employees. The largest number of employees is the determining factor, taking into account any possible seasonal work.

**Company activities:**

**A** = preparation, processing, handling, packaging, transport, distribution and retailing

**B** = preparation, processing, handling and packaging

**C** = transport, distribution and retailing of unpackaged foodstuffs

**D** = transport, distribution and retailing of packaged foodstuffs

The time indicated (auditor-days) is the estimated time for the phase 1 and phase 2 study, excluding preparation and reporting. Phase 1 and phase 2 study must be carried out on site.

Compensation should then be applied for exceptional circumstances, i.e. variations from the simple situation, for which the factors shown hereunder are to be used:

**Outline risk level of the product and/or product group:**

Distinction is made between high and low risk:

Used in calculating risk level are the product-inherent aspects, such as: number and origin of raw materials, microbiological-chemical-physical risks and technological aspects of production.

In order to be able to establish the risk level, is made use of a list of product categories. To this end, Table 2 is applied. In the case of multiple product groups, the highest level of risk of the various product groups is taken as the basis.

TABLE 2 – Categorization of foodstuffs companies according to risk level

Product group	Risk level	
	Low	High
egg processing and egg products		X
dairy - chilled and frozen (dairy, milk products, ice cream and cheese (except hard cheese))		X
ready to eat or heat (chilled and frozen), including cooked meat and cooked fish products, salads, sandwiches.		X
restaurants, hotel catering, canteens, kitchens		X
Other food categories	X	

- **The number of different product groups:**

In general within the company, different product groups will follow different production processes; as a consequence, the amount of time required for auditing will increase.

As a definition is given that products belong to the same product group provided that there are no (significant) differences in the risk analysis in relation to the entire production process. In this,



consideration should be given to the process and production characteristics. In almost all cases this can be derived from the scope that the company is required to provide; if this is not the case, the number of product groups can be established in consultation with the company or the risk analysis can be submitted in advance.

The number of production lines is not taken into account further, as it is assumed that this is allowed for sufficiently by the number of employees.

- **Number of locations:**

In principle, each location of the company must be visited individually during all types of HACCP audit (initial assessment and follow-up audits). Each location is certified separately and receives its own certificate (a multi-site approach is not permitted). The table is applied to each location, and the total is the total sum of the days needed for all the individual locations.

In certain instances, (a well-founded and documented) reduction in the time can be given on the basis of the uniformity of multiple locations included in the study on the basis of proven uniformity, without the application of a multi-site approach. This cannot be covered in a table and will have to be substantiated on a case for case basis by the CB.

- **Time used for reporting:**

Typically, a minimum period of 4 hours will be necessary to cover making a report on an initial assessment or a reassessment, with 2 hours being necessary for a control audit. This time use should be added to the table.

The factors 'risk level' and 'number of product groups' have been incorporated in Table 3, in which is shown the number of days that would be added to the days in the basis table (Table 1) in a situation under consideration (Table 1).

TABLE 3 – Additional number of auditor-days

Number of product groups	Risk level	
	Low	High
1-2	0	1
3-4	0.5	1.5
5-7	1.5	3
8 or more	3	5

**Follow-up audits and reassessments:**

The above refers to initial audits. The following instructions are applicable to follow-up audits and reassessments:

- In the case of follow-up audits, ca. 30% of the time is used for classification in groups A and B and ca. 20% of the time is used for classification in groups C and D.
- Approximately 80% of the initial audit time will be calculated for a complete reassessment. This initial audit time is the time as it is calculated for the situation prevalent at the time of reassessment (this can vary from the initial audit carried out).



## Appendix II: Basics for the audit report

### General objectives

- The report should contain information that primarily concerns the audited company
- The Phase I and Phase II reports and the re-assessment report can differ
- All below mentioned elements can be taken up in the report or added as an appendix

### Phase I Investigation

This report should at least contain the following elements:

- The requirements for a HACCP based Food Safety System, version 4, June 2006. Audit plan with date and place of execution. A description of the audited functions and processes
- Description of the company (name legal entity and address)
- Scope
- Description of the audit team members
- Description of the representatives of the auditee
- Conclusions (overview of agreed actions for Phase II investigation)
- Overview of Major and Minor NC's as well as remarks together with corresponding paragraph number and description
- Documentation with an emphasis on the risk-analysis (general overview and in-depth description)
- Description of CCP's related to every process step.
- The auditor decides during the phase I audit which CCP's will at least be investigated thoroughly and registers this.
- Validation (general view / depth).
- PRP (General overview of the company survey and its results as well as a short checklist of the aspects of the PRP).

### Phase II Investigation

This report should at least contain the following elements

- The requirements for a HACCP based Food Safety System. Audit plan with date and place of execution. A description of the audited functions and processes
- The Audit plan with date and place of execution and functions and processes that have been audited
- Description of the company (name legal entity and address)
- Scope
- Description of the audit team member
- Description of the representatives of the auditee
- Summary including conclusions and recommendations on certification
- Overview of Major and Minor NC's as well as remarks together with corresponding paragraph number and description
- Overview of relevant changes to documentation, processes and products
- Description of CCP's reviewed. Indication of random sampling and result of this assessment.
- Verification (General overview / in-depth report)
- PRP (General overview of the company survey and its results as well as a short checklist of the aspects of the PRP).
- Registered complaints on Food Safety and reports to concerning government
- Results per area, function or process with a reproduction of all questions issued and (non-)compliances with the "Requirements" (which normative elements have been assessed in which area)



<b>Report Format Technical Specification.</b>			
+ = assessed; OK - = assessed; minor or major NC NA = not applicable		result	Identification number NC
<b>1 Primary production</b>			
1.1 Environmental hygiene	1.1.1 Primary food production shall not be carried out in areas where the presence of potentially harmful substances will lead to an unacceptable level of such substances in food. Potential sources of contamination from the environment shall be considered.		
1.2 Hygienic production of food sources	1.2.1 The potential effects of primary production activities on the safety and suitability of food shall be considered at all times. In particular, this includes identifying any specific points in such activities where a high probability of contamination may exist and taking specific measures to minimise that probability.		
	1.2.2 As far as practicable, measures shall be implemented to: <ul style="list-style-type: none"> <li>- control contamination from air, soil, water, feedstuffs, fertilisers (including natural fertilisers), pesticides, veterinary drugs or any other agent used in primary production;</li> <li>- control plant and animal health so that it does not pose a threat to human health through food consumption, or adversely affect the suitability of the product;</li> <li>- protect food sources from faecal and other contamination.</li> </ul>		
	1.2.3 In particular, care shall be taken to manage waste and store harmful substances appropriately.		
	1.2.4 On-farm programmes which achieve specific food safety goals are becoming an important part of primary production and shall be encouraged.		
1.3 Handling, storage and transport	1.3.1 Procedures shall be in place to: <ul style="list-style-type: none"> <li>- sort food and food ingredients to segregate material which is evidently unfit for human consumption;</li> <li>- dispose of any rejected material in a hygienic manner;</li> <li>- protect food and food ingredients from contamination by pests, or by chemical, physical or microbiological contaminants or other objectionable substances during handling, storage and transport.</li> </ul>		
	1.3.2 Care shall be taken, so far as is reasonably practicable, to prevent deterioration and spoilage through appropriate measures which may include controlling temperature, humidity, and/or other controls.		
1.4 Cleaning, maintenance and personal hygiene	1.4.1 Appropriate facilities and procedures shall be in place to ensure that: <ul style="list-style-type: none"> <li>- any necessary cleaning and maintenance is carried out effectively;</li> <li>- an appropriate degree of personal hygiene is maintained.</li> </ul>		



<b>Summary primary production:</b>			
<b>2 Establishment: design and facilities</b>			
<b>2.1 Location</b>			
2.1.1 Establishments	2.1.1.1 Establishments shall not be located anywhere where it is clear that there is a threat to food safety or suitability. In particular, establishments shall normally be located away from: <ul style="list-style-type: none"> <li>- environmentally polluted areas and industrial activities which pose a serious threat to contamination of food;</li> <li>- areas subject to flooding unless sufficient safeguards are provided;</li> <li>- areas prone to infestations of pests;</li> <li>- areas from which waste, either solid or liquid, cannot be removed effectively.</li> </ul>		
2.1.2 Equipment	2.1.2.1 Equipment shall be located so that it: <ul style="list-style-type: none"> <li>- permits adequate maintenance and cleaning;</li> <li>- functions in accordance with its intended use;</li> <li>- facilitates good hygiene practices, including monitoring.</li> </ul>		
<b>2.2 Premises and rooms</b>			
2.2.1 Design and layout	2.2.1.1 Where appropriate, the internal design and layout of food establishments shall permit good food hygiene practices, including protection against harmful cross-contamination.		
2.2.2 Internal structures and fittings	2.2.2.1 Structures within food establishments shall be soundly built of durable materials and be easy to maintain, clean and where appropriate, disinfect.		
	2.2.2.2 The surfaces of walls, partitions and floors shall be made of impervious materials with no toxic effect in intended use.		
	2.2.2.3 Walls and partitions shall have a smooth surface up to a height appropriate to the operation.		
	2.2.2.4 Floors shall be constructed to allow adequate drainage and cleaning.		
	2.2.2.5 Ceilings and overhead fixtures shall be constructed and finished to minimise the build up of dirt and condensation and the shedding of particles.		
	2.2.2.6 Windows shall be easy to clean, constructed to minimise build up of dirt and where necessary, fitted with removable and cleanable insect-proof screens. Where necessary windows shall be fixed.		
	2.2.2.7 Doors shall have smooth, non-absorbent surfaces and shall be easy to clean and disinfect.		
	2.2.2.8 Working surfaces that come into direct contact with food shall be of sound condition, durable and easy to clean, maintain and disinfect. They shall be made of smooth, non-absorbent materials and inert to food, detergents and disinfectants under normal operating conditions.		
2.2.3 Temporary / mobile premises;	2.2.3.1 Premises and structures shall be located, designed and constructed to avoid, as far as is reasonably practicable,		



vending machines	contaminating food and harbouring pests.		
	2.2.3.2 Any food hygiene hazards associated with such facilities shall be adequately identified and controlled to ensure the safety and suitability of food.		
<b>2.3 Equipment</b>			
2.3.1 General	2.3.1.1 Equipment and re-usable containers coming into contact with food shall be designed and constructed to ensure that, where necessary, they can be adequately cleaned, disinfected and maintained to avoid the contamination of food.		
	2.3.1.2 Equipment and containers shall be made of materials with no toxic effect in intended use.		
	2.3.1.3 Where necessary, equipment is durable and movable or capable of being disassembled to allow for maintenance, cleaning, disinfection, monitoring and, for example, to facilitate inspection for pests.		
2.3.2 Food control and monitoring equipment	2.3.2.1 In addition to the general requirements in paragraph 2.3.1, equipment used to cook, heat treat, cool, store or freeze food shall be designed to achieve the required food temperatures as rapidly as necessary in the interests of food safety and suitability, and to be effectively maintained.		
	2.3.2.2 Such equipment shall also be designed to allow temperatures to be monitored and controlled. Where necessary, such equipment shall have effective means of controlling and monitoring humidity, air-flow and any other condition likely to have a detrimental effect on the safety or suitability of food.		
2.3.3 Containers for waste and inedible substances	2.3.3.1 Containers for waste, by-products, and inedible or dangerous substances shall be identifiable, suitably constructed and where appropriate made of impervious material.		
	2.3.3.2 Containers used to hold dangerous substances shall be identified and, where appropriate, shall be lockable to prevent malicious or accidental contamination of food.		
<b>2.4 Facilities</b>			
2.4.1 Water supply	2.4.1.1 An adequate supply of potable water with appropriate facilities for its storage, distribution and temperature control, shall be available whenever necessary. Potable water shall, as a minimum, meet the specifications published in the WHO Guidelines for Drinking Water Quality.		
	2.4.1.2 Separate non-potable water systems (e.g. fire control, steam production, refrigeration) shall be identified and shall not connect with, or allow reflux into, potable water systems.		
2.4.2 Drainage and waste disposal	2.4.2.1 Drainage and waste disposal systems shall be available, designed, constructed and maintained in such a way as to avoid contamination of food products and potable water supply.		
2.4.3 Cleaning	2.4.3.1 Adequate facilities, suitable designated, are provided for cleaning food utensils and equipment. If necessary these facilities shall have an adequate supply of hot and cold potable water.		
2.4.4 Personnel hygiene facilities and toilets	2.4.4.1 Adequate means of hygienically washing and drying hands, including wash basins and a supply of cold and hot (suitable temperature) water are provided.		
	2.4.4.2 Lavatories of appropriate hygienic design are provided.		
	2.4.4.3 Adequate changing facilities for personnel are provided.		
	2.4.4.4 The afore-mentioned facilities are suitable located and designated.		



2.4.5 Temperature control	2.4.5.1 Facilities for heating, cooling or freezing food products, or storing refrigerated or frozen foods are suitable to meet the specified conditions for ensuring food safety.		
2.4.6 Air quality and ventilation	2.4.6.1 Mechanical or natural ventilation ensures: <ul style="list-style-type: none"> <li>- minimisation of air-borne contamination of food (e.g. from aerosols and condensation droplets)</li> <li>- control of ambient temperatures</li> <li>- control of humidity</li> </ul>		
	2.4.6.2 Ventilation systems are designed and constructed so that air does not flow from contaminated areas to clean areas and they can be adequately maintained and cleaned.		
2.4.7 Lighting	2.4.7.1 The intensity and colour of the lighting is sufficient to ensure the production and handling of safe food products.		
	2.4.7.2 Where appropriate, lighting fixtures are protected to ensure that food products are not contaminated by breakage.		
2.4.8 Storage	2.4.8.1 Adequate facilities for storage of food ingredients and non-food materials (e.g. cleaning materials, lubricants, fuels) are provided.		
	2.4.8.2 Food storage facilities are designed and constructed to: <ul style="list-style-type: none"> <li>- permit adequate maintenance and cleaning ;</li> <li>- avoid pest access and harbourage;</li> <li>- enable food to be effectively protected from contamination;</li> <li>- provide the necessary environment to prevent spoilage.</li> </ul>		
	2.4.8.3 Facilities for storage are designed, constructed and maintained to ensure that malicious or accidental contamination of food products with harmful materials is prevented.		
<b>Summary establishment: design and facilities:</b>			
<b>3 Control of operation</b>			
<b>3.1 Control of food hazards</b>	3.1.1 Food business operators shall control food hazards through the use of systems such as HACCP. These systems shall be applied throughout the food chain to control food hygiene throughout the shelf life of the product.		
<b>3.2 Key aspects of hygiene control systems</b>			
3.2.1 Time and temperature control	3.2.1.1 Control systems for temperature and time during heating, cooling and storage are in place where necessary for the production and handling of safe food. Control systems include critical limits, registration and testing of accuracy of measuring equipment.		
3.2.2 Specific process steps	3.2.2.1 Other steps which contribute to food hygiene (and which must therefore be considered) may include chilling, thermal processing, irradiation, drying, chemical preservation, vacuum or modified atmospheric packaging.		
3.2.3 Microbiological	3.2.3.1 Where microbiological, chemical or physical specifications are relevant for food safety, such specifications		



and other specifications	shall be based on sound scientific principles and state, where appropriate, monitoring procedures, action limits and analytical methods.		
3.2.4 Microbiological cross-contamination	3.2.4.1 Where appropriate, effective separation of raw, unprocessed food from processed food applies.		
	3.2.4.2 Where appropriate, access to processing areas are restricted or controlled. Access and control procedures are defined and documented.		
	3.2.4.3 All surfaces, utensils, equipment, fixtures and fittings are cleaned and where necessary, disinfected after contact with raw food, to prevent contamination.		
3.2.5 Physical and chemical contamination	3.2.5.1 Systems are in place to prevent contamination of food products by foreign bodies (e.g. glass, metal, dust, harmful fumes) and hazardous chemicals.		
	3.2.5.2 Suitable and effective detection or screening devices are used where necessary.		
<b>3.3 Incoming materials requirements</b>			
3.3.1 Specifications	3.3.1.1 No raw material or ingredient shall be accepted by an establishment if it is known to contain parasites, undesirable micro-organisms, pesticides, veterinary drugs or toxic, decomposed or extraneous substances which would not be reduced to an acceptable level by normal sorting and/or processing. Where appropriate, specifications for raw materials shall be identified and applied.		
3.3.2 Control at reception	3.3.2.1 Raw materials or ingredients shall, where appropriate, be inspected and sorted before processing. Where necessary, laboratory tests shall be carried out to establish fitness for use. Only sound, suitable raw materials or ingredients shall be used.		
3.3.3 Stock rotation	3.3.3.1 Stocks of raw materials and ingredients shall be subject to effective stock rotation.		
<b>3.4 Packaging</b>			
3.4.1 Design and materials	3.4.1.1 Packaging design and materials shall provide adequate protection for products to minimise contamination, prevent damage and accommodate proper labelling.		
3.4.2 "Food-grade" materials and gases	3.4.2.1 Packaging materials and gases shall be non-toxic and not pose a threat to the safety and suitability of food under the specified conditions, storage and use.		
3.4.3 Reusable packaging	3.4.3.1 Re-usable packaging shall be suitably durable, easy to clean and, where necessary, disinfect.		
<b>3.5 Water</b>			
3.5.1 Water in contact with food	3.5.1.1 Only potable water shall be used in food handling and processing, with the following exceptions: - for steam production, fire control and similar purposes not connected with food - in certain processes (e.g. chilling) and in food handling areas provided it does not constitute a hazard to the safety of food (e.g. use of clean sea-water).		
3.5.2 Reuse of re-circulated, treated water	3.5.2.1 Re-circulated water for re-use shall be treated and maintained in such a condition that no hazards for food safety occur. The treatment process shall be effectively monitored.		
3.5.3 Reuse of re-circulated, non-treated water	3.5.3.1 Re-circulated water which has received no further treatment and water recovered from processing of food by evaporation or drying may be used, provided its use does not		



	constitute a risk to the safety and suitability of food.		
3.5.4 As an ingredient	3.5.4.1 Potable water shall be used.		
3.5.5 Ice and steam	3.5.5.1 Ice shall be made from water complying with section 2.4.1. Ice and steam shall be produced, handled and stored to protect them from contamination.		
	3.5.5.2 Steam used in direct contact with food or food contact surfaces shall not contain any agent which is hazardous for food safety.		
<b>3.6 Management and supervision</b>			
3.6.1 Type of control and supervision	3.6.1.1 The type of control and supervision needed will depend on the size of the business, the nature of its activities and the types of food involved.		
3.6.2 Knowledge required	3.6.2.1 Managers and supervisors shall have enough knowledge of food hygiene principles and practices to be able to judge potential risks, take appropriate preventive and corrective action, and ensure that effective monitoring and supervision takes place.		
<b>3.7 Documentation and records</b>			
3.7.1 Retain records	3.7.1.1 Where necessary, appropriate records of processing, production and distribution shall be kept and retained for a period that exceeds the shelf life of the product.		
3.7.2 Effectiveness and credibility	3.7.2.1 Documentation can enhance the credibility and effectiveness of the food safety control system.		
<b>3.8 Recall procedures</b>			
3.8.1 Effective procedures	3.8.1.1 Managers shall ensure that effective procedures are in place to deal with any food safety hazard and to enable the complete, rapid recall of any implicated batch of finished food from the market.		
3.8.2 Tracing & tracking	3.8.2.1 Where a product has been withdrawn because of an immediate health hazard, other products which are produced under similar conditions, and which may present a similar hazard to public health, shall be evaluated for safety and may need to be withdrawn. The need for public warnings shall be considered.		
3.8.3 Destroy or reprocess	3.8.3.1 Recalled products shall be held under supervision until they are destroyed, used for purposes other than human consumption, determined to be safe for human consumption, or reprocessed in a manner to ensure their safety.		



<b>Summary control of operations</b>			
<b>4 Establishment: maintenance and sanitation</b>			
<b>4.1 Maintenance and cleaning</b>			
4.1.1 General	4.1.1.1 Establishments and equipment shall be kept in an appropriate state of repair and condition to: <ul style="list-style-type: none"> <li>- facilitate all sanitation procedures;</li> <li>- function as intended, particularly at critical steps;</li> <li>- prevent contamination of food, e.g. from metal shards, flaking plaster, debris and chemicals.</li> </ul>		
	4.1.1.2 Cleaning shall remove food residues and dirt that may be a source of contamination. The necessary cleaning methods and materials will depend on the nature of the food business. Disinfection may be necessary after cleaning.		
	4.1.1.3 Cleaning chemicals shall be handled and used carefully and in accordance with manufacturers' instructions		
	4.1.1.4 Cleaning chemicals shall be stored, where necessary, separately from food, in clearly identified containers to avoid the risk of (malicious or accidental) contamination of food.		
4.1.2 Cleaning procedures and methods	4.1.2.1 The cleaning and disinfecting method(s) shall be specified and documented. The water used will comply with section 2.4.1. Contamination of food with cleaning chemicals shall be prevented.		
<b>4.2 Cleaning programmes</b>			
4.2.1 Specifications	4.2.1.1 Cleaning and disinfection programmes shall ensure that all parts of the establishment are appropriately clean, and shall include the cleaning of cleaning equipment. Where documented cleaning programmes are used, they shall specify: <ul style="list-style-type: none"> <li>- areas, items of equipment and utensils to be cleaned;</li> <li>- responsibility for particular tasks;</li> <li>- method and frequency of cleaning;</li> <li>- monitoring arrangements.</li> </ul> Where appropriate, programmes shall be drawn up in consultation with relevant expert advisors.		
4.2.2 Monitoring and verification	4.2.2.1 Cleaning and disinfection programmes shall be continually and effectively monitored for their suitability and effectiveness and where necessary, documented.		
<b>4.3 Pest control</b>			
4.3.1 General	4.3.1.1 Good hygiene practices shall be employed to avoid creating an environment conducive to pests. Good sanitation,		



	inspection of incoming materials and effective monitoring can minimise the likelihood of infestation and thereby limit the need for pesticides.		
4.3.2 Preventing access	4.3.2.1 Buildings shall be kept in good repair and condition to prevent pest access and to eliminate potential breeding sites.		
	4.3.2.2 Holes, drains and other places where pests are likely to gain access shall be kept sealed. Where sealing is not possible (e.g. open windows, doors and ventilators) measures like wire mesh screens shall be in place to reduce the problem of pest entry.		
	4.3.2.3 Animals shall, wherever possible, be excluded from the grounds of factories and food processing plants.		
4.3.3 Harborage and infestation	4.3.3.1 Potential food sources shall be stored in pest-proof containers and/or stacked above the ground and away from walls.		
	4.3.3.2 Areas both inside and outside food premises shall be kept clean. Where appropriate, refuse shall be stored in covered, pest-proof containers.		
4.3.4 Monitoring and detection	4.3.4.1 Records of regular examination of establishments and surroundings shall be available.		
4.3.5 Eradication	4.3.5.1 Pest infestations shall be dealt with immediately and shall be carried out without posing a threat to the safety or suitability of food.		
<b>4.4 Waste management</b>			
4.4.1 Removal, storage	Suitable provision must be made for the removal and storage of waste. Waste must not be allowed to accumulate in food handling, food storage, and other working areas and the adjoining environment except so far as is unavoidable for the proper functioning of the business.		
4.4.2 Cleaning	Waste stores must be kept appropriately clean.		
<b>4.5 Sanitation systems</b>			
4.5.1 Monitoring	4.5.1.1 Sanitation systems shall be monitored for effectiveness		
4.5.2 Verification	4.5.2.1. Sanitation systems shall be periodically verified by inspections or, where appropriate, by microbiological sampling of environment and food contact surfaces and regularly reviewed and adapted to reflect changed circumstances.		
4.5.3 Review	4.5.3.1 Sanitation systems shall be regularly reviewed and adapted to reflect changed circumstances.		
<b>Summary establishment: maintenance and sanitation</b>			
<b>5. Establishment: personal hygiene</b>			
<b>5.1 Health status</b>			
5.1.1 Access prevention	5.1.1.1 A system shall be in place to prevent access to any food handling area by people known, or suspected to be suffering from, or to be a carrier of, a disease or illness likely to be transmitted through food.		



	5.1.1.2 Any person so affected shall immediately report illness or symptoms of illness to the management. Medical examination of a food handler shall be carried out if clinically or epidemiologically necessary.		
<b>5.2 Illness and injuries</b>			
5.2.1 Conditions to be reported	5.2.1.1 Conditions which shall be reported to management in order to assess the need for medical examination and/or possible exclusion from food handling, include: - jaundice - diarrhoea - vomiting - fever - sore throat with fever - visibly infected skin lesions (boils, cuts, etc.) - discharges from the ear, eye or nose		
<b>5.3 Personal cleanliness</b>			
5.3.1 Protective clothing	5.3.1.1 Food handlers shall maintain a high degree of personal cleanliness and, where appropriate, wear suitable protective clothing, head covering and footwear.		
5.3.2 Cuts and wounds	5.3.2.1 When personnel with a minor injury are permitted to continue working, cuts and wounds shall be covered by suitable waterproof dressings.		
5.3.3 Washing hands	5.3.3.1 Personnel shall always wash their hands when personal cleanliness may affect food safety, for example: - at the start of food handling activities; - immediately after using the toilet; after handling raw food or any contaminated material which could result in contamination of other food items; they shall avoid handling ready-to-eat food, where appropriate.		
<b>5.4 Personal behaviour</b>			
5.4.1 Smoking, eating, sneezing	5.4.1.1 People engaged in food handling activities shall refrain from behaviour which could result in contamination of food, for example: - smoking; - spitting; - chewing or eating; - sneezing or coughing over unprotected food.		
5.4.2 Jewellery	5.4.2.1 Personal effects such as jewellery, watches, pins or other items shall not be worn or brought into food handling areas if they pose a threat to the safety and suitability of food.		
<b>5.5 Visitors</b>			
5.5.1 Cleanliness and behaviour	5.5.1.1 Visitors to food manufacturing, processing or handling areas shall, where appropriate, wear protective clothing and adhere to the other personal hygiene provisions in this section.		



**Summary establishment: personal hygiene**

**6 Transportation**

6.1 General	6.1.1 Food shall be adequately protected during transport to assure food safety.		
6.2 Requirements	6.2.1 Where necessary, conveyances and bulk containers shall be designed and constructed so that they: <ul style="list-style-type: none"> <li>- do not contaminate foods or packaging;</li> <li>- can be effectively cleaned and, where necessary, disinfected;</li> <li>- permit effective separation of different foods or foods from non-food items where necessary during transport;</li> <li>- provide effective protection from contamination, including dust and fumes;</li> <li>- can effectively maintain the temperature, humidity, atmosphere and other conditions necessary to protect food from harmful or undesirable microbial growth and deterioration likely to render it unsuitable for consumption;</li> <li>- allow any necessary temperature, humidity and other conditions to be checked.</li> </ul>		
6.3 Use and maintenance	6.3.1 Conveyances and containers for transporting food shall be kept in an appropriate state of cleanliness, repair and condition.		
	6.3.2 Where the same conveyance or container is used for transporting different foods or non-foods, effective cleaning and, where necessary, disinfection shall take place between loads.		
	6.3.3 Where appropriate, particularly in bulk transport, containers and conveyances shall be designated and marked for food use only and be used only for that purpose.		

**Summary transportation:**

**7 Product information and consumer awareness**

7.1 Batch identification	7.1.1 Batch identification is essential in product recall and also helps effective stock rotation (section 3.2.3). Each container of food shall be permanently marked to identify the producer and the batch (see: Codex General Standard for the Labelling of Pre-packaged Foods, Codex STAN 1-1985).		
7.2 Product information	7.2.1 All food products shall be accompanied by or bear adequate information to enable the next person in the food chain to handle, display, store, prepare and use the product safely and correctly.		
7.3 Labelling	7.3.1 Pre-packaged foods shall be labelled with clear instructions		



	to enable the next person in the food chain to handle, display, store and use the product safely (see: Codex General Standard for the Labelling of Pre-packaged Foods, Codex STAN 1-1985).		
7.4 Consumer education	7.4.1 Health education programmes shall cover general food hygiene. Such programmes shall enable consumers to understand the importance of any product information, follow any instructions accompanying products and make informed choices. In particular, consumers shall be informed of the relationship between time/temperature control and food-borne illness.		
<b>Summary product information and consumer awareness:</b>			
<b>8 Training</b>			
8.1 Awareness and responsibilities	8.1.1 All personnel shall be aware of their role and responsibility in protecting food from contamination or deterioration.		
	8.1.2 Food handlers shall have the necessary knowledge and skills to enable them to handle food hygienically. Those who handle strong cleaning chemicals or other potentially hazardous chemicals shall be instructed in safe handling techniques.		
8.2 Training programs	8.2.1 Factors to take into account in assessing the level of training required include: <ul style="list-style-type: none"> <li>- the nature of the food, in particular its ability to sustain growth of pathogenic or spoilage micro-organisms;</li> <li>- the manner in which the food is handled and packed, including the probability of contamination;</li> <li>- the extent and nature of processing or further preparation before final consumption;</li> <li>- the conditions under which the food will be stored;</li> <li>- the expected length of time before consumption.</li> </ul>		
8.3 Instruction and supervision	8.3.1 Periodic assessments of the effectiveness of training and instruction programmes shall be carried out, as well as routine supervision and checks to ensure that procedures are being implemented effectively.		
	8.3.2 Managers and supervisors of food processes shall have the necessary knowledge of food hygiene principles and practices to be able to judge potential risks and take the necessary action to remedy deficiencies (see section 3.5).		
8.4 Refresher training	8.4.1 Training programmes shall be routinely reviewed and updated where necessary.		
	8.4.2 Systems shall be in place to ensure that food handlers remain aware of all procedures necessary to maintain the safety and suitability of food.		



**Summary training:**