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SANS 10330:2007

Edition 2.1

# SOUTH AFRICAN NATIONAL STANDARD

Requirements for a Hazard Analysis and Critical Control Point (HACCP) system



Edition 2.1

## Table of changes

Change No.	Date	Scope		
Amdt 1	2007	Amended to update the definitions for validation and verification, and to modify the requirement regarding the validation procedures involved in Stage 11 of the HACCP study (8.12.1.1).		

## **Foreword**

This South African standard was approved by National Committee StanSA TC 5140.25, *Hygiene practices in the food industry*, in accordance with procedures of Standards South Africa, in compliance with annex 3 of the WTO/TBT agreement.

This document was published in July 2007. This document supersedes SANS 10330:2006 (edition 2).

A vertical line in the margin shows where the text has been technically modified by amendment No. 1.

Annexes A, B and C are for information only.

## Introduction

People have the right to expect that the food they eat is safe. Food safety is related to the presence and levels of food-borne hazards in food at the point of consumption.

The requirement for food safety for all food handling organizations, which produce, manufacture, handle or supply food, is paramount. Food safety should be supported by all types of organizations, regardless of type, size and product provided within the food chain, together with interrelated organizations to the food handling organization. This includes organizations directly involved (for example, but not limited to feed producers, farmers, producers of ingredients, food producers, retailers, food services, catering services, organizations providing cleaning, transportation, storage and distribution services) and other organizations indirectly involved (such as suppliers of equipment, cleaning agents and packaging material, and other food contact material) in one or more steps of the food chain.

This standard describes the principles of control needed to ensure the supply of safe food to the consumer. The principles described in this standard are internationally recognized as essential to ensure safe food products for the consumer and to provide a generic base-line structure for other specific requirements applicable to a particular food chain sector. The principles described in this standard should be considered in all food chain sectors (from farm to fork) to ensure food safety.

The most effective food safety systems are designed, operated and updated within a framework of a structured management system and incorporated into the overall management activities of the organization. The first section (clauses 3 to 7) of this standard sets out the minimum management system requirements and prerequisite programmes (PRPs) needed to support the management of the critical control points (CCPs) during the day-to-day operations of a food handling organization.

The second section (clause 8) of this standard sets out the twelve stages of the Hazard Analysis and Critical Control Point (HACCP) study leading to the establishment of the HACCP plan as an outcome of the study. The food handling organization's management system becomes a fundamental part of the effective management of their food safety hazards.

The successful application of the principles (management system, PRPs and study stages) described in this standard requires the full commitment and involvement of management and the work force, in order to provide maximum benefit for the organization.

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## Introduction (concluded)

# The HACCP principles

A HACCP study consists of seven principles which identify specific food safety hazards (biological, chemical, physical or allergens) that can adversely affect the safety of food and specific preventative measures for their control. The HACCP principles have international acceptance, and the details of this approach have been published by the Codex Alimentarius Commission (1993) and the National Advisory Committee on Microbiological Criteria for Foods (NACMCF, 1992).

HACCP consists of the following seven principles:

- Principle 1: Conduct a hazard analysis. This principle describes where the HACCP team should start. This means the selection of the team members, description of the product and uses of the product. A process flow diagram is put together detailing all the steps in the food handling process. Identification of the food safety hazards take place and a description of the preventative measures for their control follows.
- Principle 2: Determine critical control points (CCPs). When all food safety hazards and preventative measures have been described, the HACCP team establishes the points where control is critical for managing the safety of the product. These are called the critical control points.
- Principle 3: Establish critical limits to ensure that each CCP is under control. The critical limits describe the difference between safe and unsafe product at the CCP. These involve measurable parameters and are also known as the absolute tolerance for the CCP.
- Principle 4: Establish a monitoring system to ensure control over each CCP by scheduled testing or observation. The HACCP team specifies monitoring requirements for management of the CCP within its critical limits. This involves specifying monitoring actions in terms of frequency and responsibility.
- Principle 5: Establish the corrective action to be taken when monitoring indicates that a
  particular CCP is moving out of control. Corrective action procedures and responsibilities for
  their implementation need to be specified here. Actions to bring the food handling process back
  under control and actions to deal with product produced while the food handling process was out
  of control are included here.
- Principle 6: Establish validation and verification procedures and conduct a review to confirm that the HACCP system is working effectively. Validation and verification procedures could include supplementary tests and procedures to confirm that the HACCP plan and system are working effectively. The HACCP plan and system also need to be reviewed as soon as any changes are brought about within the food handling organization and the food handling process.
- Principle 7: Establish documentation on the procedures and records appropriate to these seven principles and their application. Developing and keeping of documentation are crucial to demonstrate that the HACCP plan and system are operating under control and that appropriate corrective action has been taken for any deviations from critical limits.

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# Requirements for a Hazard Analysis and Critical Control Point (HACCP) system

## 1 Scope

This standard contains the requirements for the development, implementation and maintenance of a HACCP system as a preventative system to enhance the safety of food.

## 2 Definitions

#### 2.1

#### acceptable

acceptable to the authority administering this standard, or to the parties concluding the purchase contract, as relevant

## 2.2

#### audit

systematic, independent and documented process for obtaining objective evidence and evaluating it to determine the extent to which requirements are fulfilled

#### 2.3

## control

to take all the actions necessary to ensure and maintain compliance with the requirements defined in the HACCP plan

## 2.4

#### control measure

action that can be used to prevent or eliminate a food safety hazard or reduce it to an acceptable level

#### 2.5

## correction

action to eliminate a detected non-conformity

#### 2.6

## corrective action

action to be taken when results of monitoring at the CCP indicates a loss of control

#### 2.7

## critical control point

#### **CCP**

step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level

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#### 2.8

#### critical limit

criterion which separates acceptability from unacceptability

#### 2.9

#### decision tree

sequence of questions applied to each step in the food handling process relating to an identified food safety hazard to determine which steps are CCPs

#### 2.10

#### deviation

failure to meet a set requirement

#### 2.11

#### disinfection

application of disinfectants or physical agents and processes that are suitable for use in the food industry in order to kill most vegetative forms of pathogenic and other micro-organisms (but not necessarily all bacterial and fungal spores, mycobacteria, rickettsia or viruses)

#### 2.12

#### effectiveness

extent to which planned activities are realized and planned results achieved

#### 2.13

#### flow diagram

systematic representation of the sequence of steps associated with the food handling process in the segment of the food chain under consideration

#### 2.14

#### food

article or substance ordinarily eaten or drunk by man or purporting to be suitable, or manufactured or sold, for human consumption, and includes any part or ingredient of any such article or substance, or any substance used or intended or destined to be used as a part or ingredient of any such article or substance

## 2.15

#### food handling organization

business, which during its operations, processes, manufactures, stores, transports, distributes or sells foodstuffs or is engaged in any activity which may impact on the safety of such foodstuffs

#### 2.16

## food safety hazard

biological, chemical or physical agent in, or condition of food, with the potential to cause an adverse health effect

NOTE 1 The term "hazard" should not be confused with the term "risk" which, in the context of food safety means a function of the probability of an adverse health effect (for example, becoming diseased) and the severity of that effect (death, injury, hospitalization, absence from work, etc.) when exposed to a specific hazard.

NOTE 2 Food safety hazards include allergens.

## 2.17

## **HACCP** plan

document prepared in accordance with the principles of HACCP to ensure control of hazards which are significant for food safety in the segment of the food chain under consideration

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#### 2.18

## **HACCP study**

process of applying the seven principles of HACCP used to design the HACCP plan

#### 2.19

## hazard analysis

process of collecting and evaluating information on hazards and conditions leading to their presence to decide which are significant for food safety and therefore should be addressed in the HACCP plan

#### 2.20

# Hazard Analysis and Critical Control Point system

**HACCP** 

system that identifies, evaluates, and controls hazards that are significant to food safety

#### 2.21

#### monitor

act of conducting a planned sequence of observations or measurements to assess whether a CCP is under control

#### 2.22

## non-conformity

non-fulfilment of a specified requirement

#### 2.23

## prerequisite programme

#### **PRP**

specified procedures or instructions, specific to the nature and size of the operation, that enhance or maintain operational conditions to enable more effective control of food safety hazards, or that control the likelihood of introducing food safety hazards and their contamination or proliferation in the products and product-processing environment

NOTE Alternative terms for PRPs are used, for example Good Manufacturing Practice (GMP), Good Agriculture Practice (GAP), Good Hygiene Practice (GHP), Good Laboratory Practice (GLP), Good Distribution Practice (GDP), Good Veterinarian Practice (GVP), Good Production Practice (GPP), Good Trading Practice (GTP), infrastructure and maintenance programmes, and operational prerequisite programmes.

#### 2.24

#### record

document that provides objective evidence of actions undertaken or results achieved

#### 2.25

## shall

must

expression of obligation and compulsion

## 2.26

#### validation

obtaining evidence to confirm that the elements of the HACCP plan will be effective

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#### 2.27

#### verification

application of methods, procedures, tests and other evaluations, in addition to monitoring, to determine compliance with the HACCP system

Amdt 1

## 3 National legislation

All applicable laws, by-laws, regulations and compulsory specifications shall be complied with.

If a product is exported, the relevant legislation of the country of destination shall be complied with.

NOTE For guidance on South African legislation, see annex C.

## 4 Documentation requirements

#### 4.1 The HACCP manual

The organization shall establish and maintain a HACCP manual that includes

- a) the scope of the HACCP system,
- b) documented procedures established for the HACCP system, or reference to them, and
- c) PRP procedures or reference to them.

This manual may be included in another management system manual or parts of this manual may refer to other relevant management system manual(s). The interrelation shall be described.

#### 4.2 Control of documents and records

The organization shall ensure the establishment and implementation of documented procedures for the control of documents and records. The requirements of stage 12 of the HACCP study shall be defined in these procedures (see 8.13).

## 5 Management responsibility

## 5.1 General

The responsibility for, and commitment to, a food safety system and policy rests with the highest level of management and shall include but not be limited to

- a) commitment to the implementation of the HACCP system,
- b) participation in continual improvement of the HACCP system,
- c) review of the HACCP system for continued adequacy, suitability and effectiveness,
- d) communication and understanding of the HACCP system within the organization, and
- e) establishing a forum for resolving conflict.

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## 5.2 Appointment of the management representative

A management representative shall be appointed and shall, irrespective of other responsibilities and duties, act as the management representative of the HACCP system and shall have the responsibility and authority to

- a) ensure that the HACCP system is established, implemented, maintained and continually improved in accordance with the requirements of this standard,
- b) report on the performance of the HACCP system to management and any need for improving the system,
- c) ensure management's commitment is visible, and
- d) ensure a clear route for communication, up, down and sideways.

## 5.3 Resources

- **5.3.1** Before the HACCP study commences, the team leader shall assess which resources are needed for the HACCP study and for the implementation, maintenance and continual improvement of the HACCP system. Management shall commit themselves in writing to provide the necessary resources.
- **5.3.2** The resources shall include time, competent personnel, suitable and adequate infrastructure, work environment, equipment and funding in order to implement, maintain and continually improve the HACCP system.
- **5.3.3** Training needs shall be established for all personnel involved with the study, implementation and maintenance of the HACCP system. Effectiveness of training shall be evaluated.
- **5.3.4** Appropriate records of education, training, skills and experience shall be maintained.

## 5.4 Management review

- **5.4.1** Management shall, with the aim of continual improvement, review the HACCP system at planned intervals to ensure its continued suitability, adequacy and effectiveness.
- **5.4.2** Records of management reviews shall be maintained.
- **5.4.3** A management review shall include
- a) matters arising from previous management reviews,
- b) a review of the effectiveness of CCP monitoring and failure of CCPs,
- c) a review of corrective actions and product disposal,
- d) HACCP plan verifications,
- e) HACCP plan reviews and validation of changes to the HACCP plan,
- f) a review of customer and consumer complaints,
- g) a review of recall incidents,

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- h) recommendations for improvement,
- i) resource needs,
- j) a review of suitability of the HACCP policy, and
- k) where applicable, interrelation with other management systems.

## 6 Prerequisite programmes (PRPs)

- **6.1** The production of safe food requires the HACCP system to be built on a solid foundation of prerequisite programmes.
- **6.2** The PRPs shall as a minimum address the following aspects:
- a) external areas to the facility;
- b) building structure, ablution facilities, production, distribution and storage facilities;
- c) staff and product flow;
- d) construction of equipment;
- e) maintenance programme;
- f) cleaning and disinfection programme;
- g) pest control programme;
- h) refuse or waste control programme;
- i) services needed for production, for example, air, water;
- j) personnel hygiene programme;
- k) product recall and traceability programme;
- control of suppliers;
- m)relevant training programmes; and
- n) relevant records.

NOTE SANS 10049 should be used as a guideline for establishing PRPs.

- **6.3** Additional to the PRPs, the following shall be done before the HACCP study is attempted:
- a) a complete investigation to determine the suitability of the facility and the equipment with regards to design, construction and maintenance;
- b) identification of shortfalls that might complicate the implementation of the HACCP plan. Suitable food handling equipment and facilities shall be available to handle the intended product safely; and
- c) evidence of progress made with the correction of the shortfalls identified during the investigation.

Responsibilities and appropriate time limits shall be set for the completion of the intended corrections.

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## 7 Corrective action

- **7.1** The organization shall ensure the development of a documented corrective action system.
- **7.2** The system shall define the requirements for
- a) review of non-conformities,
- b) determination of the cause of the non-conformity,
- c) evaluation of the need for action to ensure that the non-conformity does not recur.
- d) determination and implementation of the action needed,
- e) recording of the results of the action taken (correction), and
- f) reviewing the effectiveness of the corrective action taken.
- **7.3** The corrective action system shall, as a minimum, address the following:
- a) customer and consumer complaints;
- b) internal audit reports;
- c) non-conformity reports;
- d) outcome of management reviews;
- e) outcome of HACCP plan reviews;
- f) results from HACCP plan validations and verifications; and
- g) failure of CCPs.

## 8 HACCP study requirements

## 8.1 Stages of the HACCP study

The seven HACCP principles should be applied in twelve stages, as follows:

- Stage 1: Assemble the HACCP team.
- Stage 2: Describe the product.
- Stage 3: Identify the intended use of the product.
- Stage 4: Construct a product flow diagram.
  Stage 5: Arrange on-site confirmation of the flow diagram.
- Stage 6: List the food safety hazards and measures to control the hazards. (Principle 1)
- Stage 7: Determine critical control points (CCPs) (decision tree). (Principle 2)
- Stage 8: Establish critical limits for each CCP. (Principle 3)
- Stage 9: Establish a monitoring system for each CCP. (Principle 4)
- Stage 10: Establish corrective action plans. (Principle 5)
- Stage 11: Establish validation, verification and review procedures. (Principle 6)
- Stage 12: Establish record keeping and documentation. (Principle 7)

NOTE The seven principles are listed in the introduction.

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## 8.2 Stage 1: Assemble the HACCP team

#### 8.2.1 General

Management shall ensure the establishment of criteria for the selection of team members to assist with the study, establishment, implementation, maintenance and continual improvement of the HACCP system. Every team member shall accept, in writing, his assignment and commitment to the HACCP team.

#### 8.2.2 The HACCP team

#### 8.2.2.1 The team shall consist of a

## a) Team leader

The team leader shall be adequately trained in the requirements as set out in this standard.

NOTE The management representative and the team leader may be the same person.

#### b) Team members

The team shall be multidisciplinary and members shall be drawn from each part of the organization likely to be affected, for example from production, purchasing, finance, technical, engineering, quality and distribution. The HACCP team shall consist of personnel with specific knowledge of and expertise with regard to the product, the food handling process and food safety hazard categories. Where appropriate, team members with knowledge in the following areas should be considered for inclusion in the team:

- 1) food science:
- 2) microbiology;
- 3) quality control;
- 4) engineering;
- 5) industrial chemistry;
- 6) work studying;
- 7) risk assessment;
- 8) production;
- 9) marketing or sales;
- 10) distribution; and
- 11) food service management.
- **8.2.2.2** The HACCP team shall establish documentation defining the scope of the HACCP study and the team's activities. The team's activities should include establishing the following:
- a) the rules and guidelines for team meetings;
- b) the criteria used for decision making processes;

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- c) the methodology to be used by the team to determine hazards and CCPs;
- d) the methodology for reporting on the status of the HACCP system; and
- e) the methodology for the establishment of procedural requirements or integration with other relevant management system procedures.
- **8.2.2.3** Where the necessary skills or knowledge are not available within the food handling organization, the services of a consultant may be used on condition that the consultant acts only as an expert advisor to the team.

## 8.3 Stage 2: Describe the product

A complete description of the product shall be given in terms of type and composition (allergens, microbiological, chemical and physical properties), relevant legislation, handling, processing, presentation or packaging, storage and distribution conditions and the shelf life under prescribed conditions.

## 8.4 Stage 3: Identify the intended use of the product

The intended use and possible abuse of the product by consumers, consumer groups or customers shall be described. Attention shall be focused on the likely uses and abuses of the product after it has left the control of the food handling organization. Factors such as the vulnerability of the consumer, and instructions for use shall be taken into account.

## 8.5 Stage 4: Construct a product flow diagram

- **8.5.1** The HACCP team shall prepare a detailed flow diagram for the specified food products or process categories relevant to the defined scope of the HACCP study.
- **8.5.2** The following should be considered when preparing the flow diagram:
- a) the selection of raw material;
- b) processing activities;
- c) processing delays;
- d) rework cycles;
- e) packaging and storage;
- f) distribution, retail and customer handling of the product;
- g) any outsourced processes; and
- h) removal of intermediary products, by-products and waste.
- **8.5.3** A floor plan relevant to the areas falling within the defined scope of the HACCP study shall be prepared. The following should be considered during the preparation of the floor plan as relevant technical data for an effective evaluation of the product flow:
- a) layout and design features of equipment;
- b) product flow of liquids, powders, raw and cooked foods;

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- c) routes of personnel and their personal hygiene practices;
- d) product recycle or rework loops;
- e) routes of potential cross-contamination through movement of materials (ingredients, returns, water, packaging material, cleaning materials, etc.);
- f) segregation of high risk areas from low risk areas where a risk of cross-contamination exists;
- g) storage and distribution conditions of the different materials used in the food handling process;
- h) packaging materials used; and
- i) factory hygiene, cleaning and disinfection procedures.

## 8.6 Stage 5: Arrange an on-site confirmation of the flow diagram

The HACCP team shall confirm the accuracy of the flow diagram and the floor plan on site during all stages and hours of operation, so as to ensure that the flow diagram, floor plan and technical data as described in 8.5.3 gives an accurate representation of the operation. The flow diagram shall be amended to take into account any deviations from the original diagram.

Records shall be kept.

# 8.7 Stage 6: List the food safety hazards and measures to control the hazards

- **8.7.1** The HACCP team shall use the confirmed flow diagram, including all the technical data, as a guide to identify all the potential food safety hazards (inherent and introduced) that might reasonably be expected to occur at each step of the food handling process. Relevant legislation related to the food safety hazards and their control shall also be considered. The hazards shall be considered in the light of the significance, likelihood and severity of such a hazard in terms of the safety of the consumer.
- **8.7.2** Control measures for each identified food safety hazard shall be established in order to control such a hazard. More than one hazard and control measure might be applicable to one step in the process, and more than one control measure might be necessary to control a particular hazard.
- **8.7.3** Records shall be kept.

NOTE For guidance, see table A.1.

## 8.8 Stage 7: Determine the critical control points (CCPs)

The HACCP team shall determine whether a particular step in the food handling process is a CCP. The method by which a CCP is determined shall be recorded.

NOTE The decision tree in annex B can be used as a guideline.

#### 8.9 Stage 8: Establish critical limits for each CCP

The HACCP team shall establish specific and measurable critical limits appropriate for each CCP. Critical limits that can be measured quickly and easily shall be used. Measurements can include sensory examination, mass measurements, temperature measurements, time, moisture level, pH value and chemical analyses.

Records shall be kept.

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## 8.10 Stage 9: Establish a monitoring system for each CCP

The HACCP team shall establish a monitoring system to ensure that control of the CCP is effective.

The control measures established as part of the monitoring system shall be such that they can confirm that all CCPs are under control.

The following shall be addressed in establishing the monitoring system:

- a) Responsible person or equipment. Responsibilities and authorities for the monitoring of a specific CCP shall be identified. This person or equipment shall have the knowledge or capability to ensure effective monitoring of the CCP. A person shall be given the responsibility and authority to take the necessary corrective action when the specified critical limit of the CCP is exceeded. A responsible person other than the person doing the monitoring shall verify records associated with the monitoring of a CCP. Equipment used for the monitoring of a CCP shall be calibrated.
- b) **Frequency of monitoring**. The frequency of monitoring shall be specified. The frequency shall be adequate to ensure the control of the CCP.
- c) **Monitoring methodology**. A detailed description shall be given to indicate precisely how the monitoring shall be done.

Records shall be kept to prove effectiveness of the monitoring system.

NOTE Microbiological testing is seldom effective for the routine monitoring of CCPs owing to the fact that it can be time consuming and that there are problems related to the detection of contaminants.

## 8.11 Stage 10: Establish corrective action plans

The HACCP team shall establish corrective action plans for each CCP when monitoring of the critical limits indicates deviation from the limits. The responsibility for and manner of disposal of the unsafe product shall be clearly identified.

Records shall be kept of all corrective actions.

## 8.12 Stage 11: Establish validation, verification and review procedures

### 8.12.1 Validation

- **8.12.1.1** Validation activities shall include actions to confirm that the established critical limit(s) for each CCP is effective and capable of achieving the intended control of the identified food safety hazard(s).

  Amdt 1
- **8.12.1.2** If validation results show that one or more of the above elements cannot be confirmed, the relevant elements shall be modified and reassessed.

#### 8.12.2 Verification

- **8.12.2.1** The HACCP team shall establish a system for the verification of all HACCP procedures and records. Verification and auditing methods, procedures and tests, including random sampling and analysis, shall be used, as appropriate, to determine the effectiveness of the HACCP system.
- **8.12.2.2** Regular internal audits shall be scheduled and conducted to ensure that the HACCP system conforms to the planned arrangements and the CCP monitoring system and that the corrective action plans are effective. All processes relevant to the HACCP system shall be audited.

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**8.12.2.3** The audit criteria, scope, frequency and methods that form part of the audit programme shall be defined and documented. Selection of auditors and conduct of audits shall be such that objectivity and impartiality are ensured during the audit process.

Records shall be kept of validations and verifications.

## 8.12.3 HACCP plan review

- **8.12.3.1** The HACCP team shall establish a procedure for the review of the HACCP plan. This procedure shall include events that will automatically trigger a HACCP plan review (internal and external factors should be considered). The HACCP plan shall be updated after such a review. The review may lead to a reduction in or the addition of CCPs, or the inclusion of additional critical limits in order to improve the HACCP plan.
- **8.12.3.2** The following potential events can influence food safety and shall automatically trigger a HACCP plan review:
- a) any report from the marketplace that indicates a health or spoilage risk associated with the product (customer and consumer complaints);
- b) an anticipated change in customer and consumer use;
- c) a change in raw materials or product formulation;
- d) a change in the food handling process activities;
- e) a change in the food handling organization layout and environment;
- f) any modification to food handling equipment;
- g) a change in the cleaning and disinfection programme;
- h) a change in the packaging, storage and distribution system;
- i) changes to staff levels and responsibilities;
- j) changes in legislation;
- k) results of validation and verification activities; and
- I) any changes pertaining to PRPs.
- **8.12.3.3** Records of HACCP plan reviews shall be kept, and the results shall be discussed at management reviews.

## 8.13 Stage 12: Establish control of documents and records

## 8.13.1 Document control

The HACCP team shall ensure that a procedure for document control is established. The document control procedure shall address at least the following:

- a) approval of documents for adequacy before being issued;
- b) review and update of documents as necessary and re-approval of these documents;

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- c) identification of changes to documents and the current revision status;
- d) ensure that the current versions of applicable documents are available at points of use;
- e) ensure that documents are legible and readily identifiable;
- f) ensure that documents of external origin are identified and their distribution controlled; and
- g) prevention of the unintended use of obsolete documents and application of suitable identification to them if retained for any purpose.

A method of control for identification of the latest versions of all documents shall be established.

#### 8.13.2 Record control

The HACCP team shall ensure the establishment of a procedure for the control of records. The procedure shall address the identification, collection, storage, protection, retrieval, retention times and disposal of such records.

Records shall be legible, easily retrievable and accessible and shall provide evidence of conformance to the requirements of the HACCP system.

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## Annex A

(informative)

# Tables to use as guidance for drawing up the HACCP plan

Table A.1 — Information from stages 4 to 6 of the HACCP study

1	2	3	4	5	
Process step	Potential food safety hazards (B/C/P/A)	Risk assessment (likelihood/ severity)	Is the hazard significant? (Yes/No) <sup>a</sup>	Preventative control measure(s)	
<sup>a</sup> If yes, move to table A.2, column 2.					

## Table A.2 — Information from stages 7 to 12 of the HACCP study

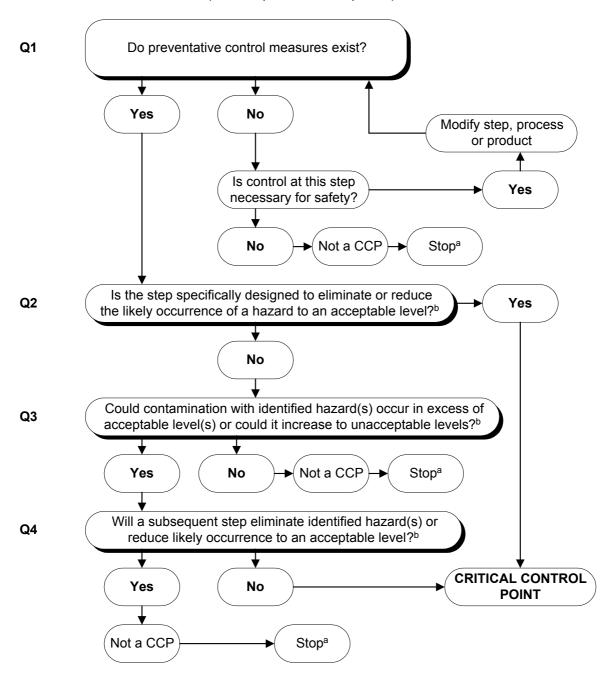
1	2	3	4	5	6	7	8
Process step	Justified hazard	CCP (Yes/No)	Critical limit	Monitoring (who/when/how)	Corrective action	Validate & verify	Procedure/ Record

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# Annex B (informative)

# Example of a decision tree used to identify CCPs

(answer questions in sequence)



<sup>&</sup>lt;sup>a</sup> Proceed to the next identified hazard in the described process.

<sup>&</sup>lt;sup>b</sup> Acceptable and unacceptable levels need to be determined within the overall objectives in identifying the CCPs of the HACCP plan.

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# Annex C (informative)

# **Applicable legislation**

# C.1 Acts

Table C.1 gives information on the legislation applicable in South Africa (see clause 3).

Table C.1 — Acts

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Sector	Description				
Agriculture	Abattoir Hygiene Act, 1992 (Act No. 121 of 1992)				
	Agricultural Pests Act, 1983 (Act No. 36 of 1983)				
	Agricultural Product Standards Act, 1990 (Act No. 119 of 1990)				
	Agricultural Research Act, 1990 (Act No. 86 of 1990)				
	Animal Health Act, 2000 (Act No. 7 of 2002)				
	Animal Improvement Act, 1998 (Act No. 62 of 1998)				
	Animal Protection Act, 1962 (Act No. 71 of 1962)				
	Co-operatives Act, 1981 (Act No. 91 of 1981)				
	Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947)				
	Genetically Modified Organisms Act, 1997 (Act No. 15 of 1997)				
	Liquor Products Act, 1989 (Act No. 60 of 1989)				
	Marketing of Agricultural Products Act, 1996 (Act No. 47 of 1996)				
	Meat Safety Act, 2000 (Act No. 40 of 2000)				
	Plant Breeders' Rights Act, 1976 (Act No. 15 of 1976)				
	Plant Improvement Act, 1976 (Act No. 53 of 1976)				
Environmental	Sea Fishery Act, 1988 (Act No. 12 of 1988)				
Health	Foodstuffs, Cosmetic and Disinfectants Act, 1972 (Act No. 54 of 1972)				
	Hazardous Substances Act, 1973 (Act No. 15 of 1973)				
	International Health Regulations Act, 1974 (Act No. 28 of 1974)				
	Medicine and Related Substances Act, 1965 (Act No. 101 of 1965)				
	National Health Act, 2003 (Act No. 61 of 2003)				
Housing	National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977)				
Labour	Employment Equity Act , 1998 (Act No. 55 of 1998)				
	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)				
Trade and industrial	Liquor Act, 1989 (Act No. 59 of 2003)				
mausmai	Standards Act, 1993 (Act No. 29 of 1993)				
	Trademarks Act, 1993 (Act No. 194 of 1993)				
	Trade Metrology Act, 1973 (Act No. 77 of 1973)				

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## C.2 Websites

For additional information visit the following websites:

www.acts.co.za

www.codexalimentarius.net

www.doh.gov.za

www.dti.gov.za

www.fao.org

www.fda.gov

www.environment.gov.za

www.europa.eu.int

www.gov.za

www.nda.agric.za

www.stansa.co.za

www.who.int

## **Bibliography**

## **Standards**

SANS 241, Drinking water.

SANS 1827 (SABS 1827), The safety of water treatment chemicals for use in the food industry.

SANS 1828, Cleaning chemicals for use in the food industry.

SANS 1853 (SABS 1853), Disinfectants and detergent-disinfectants for use in the food industry.

SANS 9004/ISO 9004, Quality management systems – Guidelines for performance improvements.

SANS 10049 (SABS 049), Food hygiene management.

SANS 10133 (SABS 0133), The application of pesticides in food-handling, food-processing, and catering establishments.

SANS 15161/ISO 15161, Guidelines on the application of ISO 9001:2000 for the food and drink industry.

SANS 19011/ISO 19011, Guidelines for quality and/or environmental management systems auditing.

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SANS 22000/ISO 22000, Food safety management systems – Requirements for any organization in the food chain.

VC 8014, The manufacture, production, processing and treatment of canned fish, canned marine molluscs and canned crustaceans.

VC 8017, Frozen fish, frozen marine molluscs and frozen products derived therefrom.

VC 8019, The manufacture, production, processing and treatment of canned meat products.

VC 8020, Frozen rock lobster and frozen lobster products derived therefrom.

VC 8021, Smoked snoek.

VC 8031, Frozen shrimps (prawns), langoustines and crabs.

## Other publications

Joint FAO/WHO Food Standards Programme. Codex Alimentarius Commission. *Codex Alimentarius – Food hygiene – Basic texts*. 2nd ed. Rome: Food and Agriculture Organization, 2001.

South Africa. Department of Health. Directorate: Food Control. *Guidelines for the management and health surveillance of food handlers*. 2000.

South Africa. Department of Health. *Policy guidelines: national food safety alerts and official food product recalls in South Africa*. 2004.

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