

## REGIONAL GUIDELINES FOR THE DESIGN OF CONTROL MEASURES FOR STREET-VENDED FOODS (AFRICA)

### CAC/GL 22R - 1997

#### *Contents*

<b>INTRODUCTION .....</b>	<b>2</b>
<b>SECTION I - OBJECTIVES .....</b>	<b>2</b>
<b>SECTION II - SCOPE, USE, DEFINITION AND GENERAL REQUIREMENTS .....</b>	<b>2</b>
2.1 SCOPE.....	2
2.2 USE .....	3
2.3 DEFINITIONS.....	3
2.4 GENERAL REQUIREMENTS.....	5
<b>SECTION III - ESTABLISHMENT: DESIGN, FACILITIES, MAINTENANCE AND SANITATION .....</b>	<b>5</b>
3.1 LOCATION .....	6
3.2 PREMISES AND ROOMS .....	6
3.3 EQUIPMENT .....	7
3.4 FACILITIES.....	7
3.5 MAINTENANCE AND CLEANING.....	8
3.6 CLEANING PROGRAMMES.....	9
3.7 PEST CONTROL SYSTEMS.....	9
3.8 WASTE MANAGEMENT .....	10
3.9 SANITATION .....	10
3.10 MONITORING EFFECTIVENESS .....	11
<b>SECTION VI - STREET FOOD CENTRES.....</b>	<b>11</b>
4.1 GENERAL REQUIREMENTS.....	11
4.2 LOCATION, DESIGN AND CONSTRUCTION.....	11
4.3 LIQUID AND SOLID WASTE.....	13
4.4 CUSTOMER FACILITIES .....	13
<b>SECTION V - CONTROL OF OPERATION .....</b>	<b>14</b>
5.1 REQUIREMENTS FOR INGREDIENTS .....	14
5.2 COOKING AND HANDLING .....	14
5.3 SERVING FOOD.....	15
5.4 UNSOLD FOOD.....	16
5.5 TRANSPORTATION OF STREET FOODS.....	16
5.6 USE AND MAINTENANCE.....	16
5.7 FOOD STORAGE .....	16
5.8 KEY ASPECTS OF HYGIENE CONTROL SYSTEMS.....	16
5.9 INCOMING MATERIAL REQUIREMENTS.....	17
5.10 WATER.....	17
5.11 MANAGEMENT AND SUPERVISION.....	18
5.12 STREET FOOD ADVISORY SERVICE.....	18
<b>SECTION VI - PERSONAL HEALTH.....</b>	<b>18</b>
6.1 HEALTH STATUS.....	19

6.2	ILLNESS AND INJURIES.....	19
6.3	PERSONAL CLEANLINES .....	19
6.4	PERSONAL BEHAVIOUR .....	20
6.5	VISITORS .....	20
<b>SECTION VII - TRAINING.....</b>		<b>20</b>
7.1	AWARENESS AND RESPONSIBILITIES .....	20
7.2	TRAINING PROGRAMMES .....	20
7.3	INSTRUCTION AND SUPERVISION .....	21
7.4	REFRESHER TRAINING.....	21
7.5	TRAINING OF VENDORS .....	21
7.6	VENDOR’S ASSOCIATIONS.....	21
7.7	CONSUMER EDUCATION .....	21

## INTRODUCTION

People have the right to expect the food they eat to be safe and suitable for consumption. Foodborne illness and foodborne injury are at best unpleasant; at worst, they can be fatal. But there are also other consequences. Outbreaks of foodborne illness can damage trade and tourism, and lead to loss of earnings, unemployment and litigation. Food spoilage is wasteful, costly and can adversely affect trade and consumer confidence.

International food trade, and foreign travel, are increasing, bringing important social and economic benefits. But this also makes the spread of illness around the world easier. Eating habits too, have undergone major change in many countries over the last two decades and new food production, preparation and distribution techniques have developed to reflect this. Effective hygiene control, therefore, is vital to avoid the adverse human health and economic consequences of foodborne illness, foodborne injury, and food spoilage. Everyone, including farmers and growers, manufacturers and processors, food handlers and consumers, has a responsibility to assure that food is safe and suitable for consumption.

These Guidelines lay a firm foundation for ensuring food hygiene. It recommends a HACCP-based approach wherever possible to enhance food safety as described in the Recommended International Code of Practice – General Principles of Food Hygiene.

The controls described in these Guidelines are recognized as essential to ensure the safety and suitability of food for consumption. The Guidelines are commended to Governments, industry (including individual primary producers, manufacturers, processors, food service operators and retailers) and consumers alike.

## SECTION I - OBJECTIVES

The objectives of these Guidelines are to provide the necessary provisions to be considered when elaborating street food control measures in the Region of Africa including the elaboration of Codes of Practice. Its aim is to assist relevant authorities in upgrading the operation of the street food industry to ensure that the population has available wholesome, safe and nutritious foods in accessible places.

## SECTION II - SCOPE, USE, DEFINITION AND GENERAL REQUIREMENTS

### 2.1 SCOPE

The Guidelines specify the general hygienic requirements and practices to be recommended for inclusion in Codes of Practice for the preparation and sale of street foods.

### **2.1.1 Roles of Relevant Authorities, Vendors, and Consumers**

Relevant authorities can consider the contents of this document and decide how best they should encourage the implementation of these guidelines to:

- protect consumers adequately from illness or injury caused by food; policies need to consider the vulnerability of the population, or of different groups within the population;
- provide assurance that food is suitable for human consumption; and
- provide health education programmes which effectively communicate the principles of food hygiene to vendors and consumers.

Vendors should apply the hygienic practices set out in this document to:

- provide food which is safe and suitable for consumption; and
- ensure that consumers have clear and easily-understood information, by way of labelling and other appropriate means, to enable them to protect their food from contamination and growth/survival of foodborne pathogens by storing, handling and preparing it correctly

Consumers should recognize their role by following relevant instructions and applying appropriate food hygiene measures.

## **2.2 USE**

Each section in this document states both the objectives to be achieved and the rationale behind those objectives in terms of the safety and suitability of food.

There will inevitably be situations where some of the specific requirements contained in this document are not applicable. The fundamental question in every case is “what is necessary and appropriate on the grounds of the safety and suitability of food for consumption?”

## **2.3 DEFINITIONS**

For the purpose of these Guidelines, unless indicated otherwise, the following definitions apply:

**Appliances** - means the whole or any part of any utensil, machinery, instrument, apparatus or article, including traditional types, used or intended for use, in or for making, preparing, keeping, selling or supplying of food.

**Clean water** - means clear water from any natural source free from pathogens, contaminants and any other objectionable matter, in an amount not harmful to human health, and may require minimum treatment to make it safe for drinking

**Cleaning** - the removal of soil, food residue, dirt, grease or other objectionable matter.

**Contaminant** - any biological or chemical agent, foreign matter, or other substances not intentionally added to food which may compromise food safety or suitability.

**Contamination** - the introduction or occurrence of a contaminant in food or food environment.

**Crockery** - means all glasses, plates, dishes, cups, saucers, spoons, forks, ladles, chopsticks and other articles used in serving and consumption of food, including disposable articles.

**Disinfection** - the reduction, by means of chemical agents and/or physical methods, of the number of micro-organisms in the environment, to a level that does not compromise food safety or suitability.

**Disposable articles** - means any appliance, container, implement, utensil or wrapper that is intended for use only once in the preparation, storage, display, consumption or sale of food.

**Establishment** - any building or area in which food is handled and the surroundings under the control of the same management.

**Food hygiene** - all conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain.

**Food handler** - any person who directly handles packaged or unpackaged food, food equipment and utensils, or food contact surfaces and is therefore expected to comply with food hygiene requirements

**Food safety** - assurance that food will not cause harm to the consumer when it is prepared and/or eaten according to its intended use.

**Food suitability** - assurance that food is acceptable for human consumption according to its intended use.

**Hazard** - a biological, chemical or physical agent in, or condition of, food with the potential to cause an adverse health effect.

**HACCP** - a system which identifies, evaluates, and controls hazards which are significant for food safety.

**Impermeable** - means not allowing the passage of water and/or fluid.

**Microorganisms** - means any microscopic living organism that can cause disease or food spoilage.

**Mobile vendor** - means any person with/without a vehicle going from place to place for the purpose of preparing, serving, displaying, distributing or delivering any street food.

**Perishable food** - means food that is of such a type or is in such a condition that it may spoil.

**Potable water** - means treated water which shall comply with WHO Guidelines for Drinking Water Quality.

**Primary production** - those steps in the food chain up to and including, for example, harvesting, slaughter, milking, fishing.

**Readily perishable food** - means perishable food that consists wholly or partly of milk, milk products, eggs, meat, poultry, fish or shellfish, or ingredients that are capable of supporting the progressive growth of microorganisms that can cause food spoilage, food poisoning and other food borne illness.

**Ready-to-eat food** - Any food (including beverages) which is normally consumed in its raw state or any food handled, processed, mixed, cooked, or otherwise prepared into a form in which it is normally consumed without further processing.

**Relevant authority** - means the Ministry having responsibility and any local or officially recognized authority.

**Sealed container** - means food grade containers such as:

- hermetically sealed containers;
- sealed jars, with anchor and crown type closures;
- milk bottles sealed with aluminium caps;
- glass jars and bottles with screw caps: and
- cans and similar containers with seals.

**Street food centre** - means any public place or establishment designated by the relevant authority for the preparation, display and sale of street foods by multiple vendors.

**Street foods** - ready-to-eat foods prepared and/or sold by vendors and hawkers especially in streets and other similar public places (see FAO Food and Nutrition Paper 46).

**Street food stall** - means a place where street food is prepared, displayed, served or sold to the public. It includes carts, tables, benches, baskets, chairs, vehicles with or without wheels and any other structure approved by the relevant authority where on it or in it, any street foods are displayed for sale.

**Waste water** - means sullage water arising as a result of the activity of vendors.

**Water container** - means any form of food grade container which is used solely for the purpose of storing and serving water and has not been used previously for any other purposes which could cause contamination of the water stored in it.

## 2.4 GENERAL REQUIREMENTS

### 2.4.1 Regulations

To enable official recognition and control of the street food industry as an integral part of the food supply, appropriate regulations should be prepared either separately or for incorporation into existing food regulations.

The general hygienic requirements and practices to be followed by the vendors should be translated by the relevant authorities into Codes of Practice which are recognized as cost effective tools for the control of street foods, by fully taking into account local conditions including specific risk factors that are relevant to each operation.

### 2.4.2 Licensing of Vendors

The Relevant Authorities should set up appropriate modalities for the issuance and renewal of licenses to vendors.

## SECTION III - ESTABLISHMENT: DESIGN, FACILITIES, MAINTENANCE AND SANITATION

### Objectives:

Depending on the nature of the operations, and the risks associated with them, premises, equipment and facilities should be located, designed and constructed to ensure that:

- contamination is minimized;
- design and layout permit appropriate maintenance, cleaning and disinfections and minimize air-borne contamination;
- surfaces and materials, in particular those in contact with food, are non-toxic in intended use and, where necessary, suitably durable, and easy to maintain and clean;
- where appropriate, suitable facilities are available for temperature, humidity and other controls; and
- there is effective protection against pest access and harbourage.

### Rationale:

Attention to good hygienic design and construction, appropriate location, and the provision of adequate facilities, is necessary to enable hazards to be effectively controlled.

### **3.1 LOCATION**

#### ***3.1.1 Establishments***

Potential sources of contamination need to be considered when deciding where to locate food establishments, as well as the effectiveness of any reasonable measures that might be taken to protect food. Establishments should not be located anywhere where, after considering such protective measures, it is clear that there will remain a threat to food safety or suitability. Stalls shall be located in areas designated by the relevant authorities. In particular, establishments should normally be located away from:

- environmentally polluted areas and industrial activities which pose a serious threat of contaminating food;
- areas subject to flooding unless sufficient safeguards are provided;
- areas prone to infestations of pests;
- areas where wastes, either solid or liquid, cannot be removed effectively.

Section 3.1.1 should also apply to mobile vendors.

The space in and around the vendors, stall shall be free of unnecessary stored goods or articles and discarded articles in order to permit easy access for cleaning.

### **3.2 PREMISES AND ROOMS**

#### ***3.2.1 Design and Layout***

Vendors' stalls shall be of a type approved by the relevant authority.

#### ***3.2.2 Internal Structures and Fittings***

Structures within food establishments should be soundly built of durable materials and be easy to maintain, clean and where appropriate, able to be disinfected. In particular the following specific conditions should be satisfied where necessary to protect the safety and suitability of food:

- the surfaces of walls, partitions and floors should be made of impervious materials with no toxic effect in intended use;
- walls and partitions should have a smooth surface up to a height appropriate to the operation;
- floors should be constructed to allow adequate drainage and cleaning;
- ceilings and overhead fixtures should be constructed and finished to minimize the build up of dirt and condensation, and the shedding of particles;
- windows should be easy to clean, be constructed to minimize the build up of dirt and where necessary, be fitted with removable and cleanable insect-proof screens. Where necessary, windows should be fixed;
- doors should have smooth, non-absorbent surfaces, and be easy to clean and, where necessary, disinfect;
- working surfaces that come into direct contact with food should be in sound condition, durable and easy to clean, maintain and disinfect. They should be made of smooth, non-absorbent materials, and inert to the food, to detergents and disinfectants under normal operating conditions.
- All cooking ranges, washing equipment, working tables, shelves and cupboards on or in which food is placed should be at least 45cm above the ground.

### ***3.2.3 Temporary/Mobile Premises and Vending Machines***

Market stalls, mobile sales and street vending vehicles, temporary premises in which food is handled such as tents and marquees should be sited, designed and constructed to avoid, as far as reasonably practicable, contaminating food and harbouring pests.

In applying these specific conditions and requirements, any food hygiene hazards associated with such facilities should be adequately controlled to ensure the safety and suitability of food.

## **3.3 EQUIPMENT**

### ***3.3.1 General***

Equipment and containers (other than once-only use containers and packaging) coming into contact with food, should be designed and constructed to ensure that, where necessary, they can be adequately cleaned, disinfected and maintained to avoid the contamination of food. Equipment and containers should be made of materials with no toxic effect in intended use. Where necessary, equipment should be durable and movable or capable of being disassembled to allow for maintenance, cleaning, disinfection, monitoring and, for example, to facilitate inspection for pests.

Cooked and uncooked food should be handled with separate utensils.

All utensils should be regularly cleaned by thoroughly washing them in warm water containing adequate amount of soap or other suitable detergents and then either immersing them for one-half (1/2) minute in boiling clean water and draining them or, for two (2) minutes in potable water at a temperature of not less than 77°C and draining them.

In the case where non-disposable crockery is used and water at 77°C or boiling temperatures is unavailable, potable water, wash soap or detergent and running water rinse is allowed. However, this method is not preferred.

All washed and clean utensils and crockery should be handled, stored or transported separately from unclean and used utensils and crockery and other sources of contamination. They shall be stored in a clean and protected area which is not accessible to pests or vermin.

Containers used for table side condiments should be kept clean and maintained in good condition and protected from pests.

All hand service articles such as napkins, towels and hand wipes should be of the disposable type.

### ***3.3.2 Containers for Waste and Inedible Substances***

Containers for waste, by-products and inedible or dangerous substances, should be specifically identifiable, suitably constructed and, where appropriate, made of impervious material. Containers used to hold dangerous substances should be identified and, where appropriate, be lockable to prevent malicious or accidental contamination of food.

Every vendor should ensure that all defective, damaged, cracked, rusted, chipped and unsuitable appliances and crockery are removed from use and discarded.

## **3.4 FACILITIES**

### ***3.4.1 Water Supply***

An adequate supply of potable water with appropriate facilities for its storage, distribution and temperature control, should be available whenever necessary to ensure the safety and suitability of food.

Potable water should be as specified in the latest edition of WHO Guidelines for Drinking Water Quality, or water of a higher standard. Non-potable water (for use in, for example, fire control, steam production,

refrigeration and other similar purposes where it would not contaminate food), shall have a separate system. Non-potable water systems shall be identified and shall not connect with, or allow reflux into, potable water systems.

### ***3.4.2 Drainage and Waste Disposal***

Adequate drainage and waste disposal systems and facilities should be provided. They should be designed and constructed so that the risk of contaminating food or the potable water supply is avoided.

### ***3.4.3 Cleaning***

Adequate facilities, suitably designated, should be provided for cleaning food, utensils and equipment. Such facilities should have an adequate supply of hot and cold potable water where appropriate.

Wash basins and sinks for cleaning utensils and washing hands should always be clean and maintained in a good state of repair.

Towels used for wiping crockery should be clean, handled in a sanitary manner and only be used for that purpose.

Adequate hand washing facilities including hand wash basins, soap and supply of potable water should be provided at all times.

### ***3.4.4 Personnel Hygiene Facilities and Toilets***

Personnel hygiene facilities should be available to ensure that an appropriate degree of personal hygiene can be maintained and to avoid contaminating food. Where appropriate, facilities should include:

- adequate means of hygienically washing and drying hands, including wash basins and a supply of hot and cold (or suitably temperature controlled) water;
- lavatories of appropriate hygienic design; and
- adequate changing facilities for personnel.

Such facilities should be suitably located and designated.

### ***3.4.5 Lighting***

Adequate natural or artificial lighting should be provided to enable the undertaking to operate in a hygienic manner. The intensity should be adequate to the nature of the operation. Lighting fixtures should, where appropriate, be protected to ensure that food is not contaminated by breakages.

### ***3.4.6 Storage***

Where necessary, adequate facilities for the storage of food, ingredients and non-food chemicals (e.g. cleaning materials, lubricants, fuels) should be provided. The type of storage facilities required will depend on the nature of the food. Where necessary, separate, secure storage facilities for cleaning materials and hazardous substances should be provided.

## **3.5 MAINTENANCE AND CLEANING**

### ***3.5.1 General***

Establishments and equipment should be kept in an appropriate state of repair and condition to:

- facilitate all sanitation procedures;
- function as intended; and



- prevent contamination of food, e.g. from metal shards, flaking plaster, debris and chemicals.

Cleaning should remove food residues and dirt which 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.

Cleaning chemicals should be handled and used carefully and in accordance with manufacturers' instructions and stored, where necessary, separated from food, in clearly identified containers to avoid the risk of contaminating food.

### ***3.5.2 Cleaning Procedures and Methods***

Cleaning can be carried out by the separate or the combined use of physical methods, such as heat, scrubbing, turbulent flow, vacuum cleaning or other methods that avoid the use of water, and chemical methods using detergents, alkalis or acids.

Cleaning procedures will involve, where appropriate:

- removing gross debris from surfaces;
- applying a detergent solution to loosen soil and bacterial film and hold them in solution or suspension;
- rinsing with water which complies with section 4, to remove loosened soil and residues of detergent;
- dry cleaning or other appropriate methods for removing and collecting residues and debris; and
- where necessary, disinfection.

## **3.6 CLEANING PROGRAMMES**

Cleaning and disinfection programmes should ensure that all parts of the establishment are appropriately clean, and should include the cleaning of cleaning equipment.

Cleaning and disinfection programmes should be continually and effectively monitored for their suitability and effectiveness and where necessary, documented.

Where written cleaning programmes are used, they should specify:

- areas, items of equipment and utensils to be cleaned;
- responsibility for particular tasks;
- method and frequency of cleaning; and
- monitoring arrangements.

Where appropriate, programmes should be drawn up in consultation with relevant specialist expert advisors.

## **3.7 PEST CONTROL SYSTEMS**

### ***3.7.1 General***

Pests pose a major threat to the safety and suitability of food. Pest infestations can occur where there are breeding sites and a supply of food. Good hygiene practices should be employed to avoid creating an environment conducive to pests. Good sanitation, inspection of incoming materials and good monitoring can minimize the likelihood of infestation and thereby limit the need for pesticides

### ***3.7.2 Preventing Access***

Buildings should be kept in good repair and condition to prevent pest access and to eliminate potential breeding sites. Holes, drains and other places where pests are likely to gain access should be kept sealed. Wire mesh screens, for example on open windows, doors and ventilators, will reduce the problem of pest entry. Animals should, wherever possible, be excluded from the grounds of factories and food processing plants.

### ***3.7.3 Harborage and Infestation***

The availability of food and water encourages pest harborage and infestation. Potential food sources should be stored in pest-proof containers and/or stacked above the ground and away from walls. Areas both inside and outside food premises should be kept clean. Where appropriate, refuse should be stored in covered, pest-proof containers.

### ***3.7.4 Monitoring and Detection***

Establishments and surrounding areas should be regularly examined for evidence of infestation.

### ***3.7.5 Eradication***

Pest infestations should be dealt with immediately and without adversely affecting food safety or suitability. Treatment with chemical, physical or biological agents should be carried out without posing a threat to the safety or suitability of food.

## **3.8 WASTE MANAGEMENT**

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.

Waste stores must be kept appropriately clean.

## **3.9 SANITATION**

### ***3.9.1 Water Supply***

Vendors should ensure sufficient supply of potable water at all times. Where necessary, such as in the case of mobile vendors or where potable water supply is not yet available, potable water should be stored in clean water containers as defined in these Guidelines.

### ***3.9.2 Waste Water Disposal***

Vendors' stalls should have an efficient waste water disposal system which should be maintained in a good state of repair. The system should be large enough to carry peak loads and be provided with traps to ensure only liquid waste is discharged into the drain/sewer.

### ***3.9.3 Solid Waste Disposal***

Solid waste material should be handled in such a manner as to avoid contamination of food and/or potable water. Waste should be removed from the working area of the stall as often as necessary and at least daily. All solid waste should be properly disposed into suitable containers which are secured with tight fitting lids or placed in rubbish bins or central rubbish bins.

Immediately after disposal of the waste, receptacles used for storage and any equipment which has come into contact with the waste should be cleaned using one of the methods described in Section 3.3.1.2. The waste storage area should also be cleaned daily.

Waste receptacles, equipment which has come into contact with the waste and waste storage areas should be disinfected when required by the relevant authority. Only appropriate and suitable sanitizing agents should be used. In areas without garbage collection service, solid waste is to be disposed of in a sanitary manner, as recommended or approved by the relevant authority.

### **3.9.4 Cleaning**

All working surfaces, table tops, floors and surrounding areas should be thoroughly cleaned at least daily, using one of the methods described in Section 3.3.1.2

### **3.9.5 Toilet facilities**

Every vendor, helper or food handler should have access to facilities which are approved by the relevant authorities and kept at all times in a clean and operational condition.

## **3.10 MONITORING EFFECTIVENESS**

Sanitation systems should be monitored for effectiveness, periodically verified by means such as audit pre-operational inspections or, where appropriate, microbiological sampling of environment and food contact surfaces and regularly reviewed and adapted to reflect changed circumstances.

## **SECTION VI - STREET FOOD CENTRES**

### **Objectives:**

The safety and hygienic preparation of food, and hence the health of consumers, should not be compromised with the inability of vendors to provide adequate facilities and conditions as required by these Guidelines. The Relevant Authorities should endeavour to provide special centres within a locality which have adequate facilities and utility services as required by these Guidelines, where spaces could be rented out to vendors. Such street food centres will:

- provide an environment for storing, preparing, and serving safe food;
- provide the necessary utilities, such as potable water, adequate light, drainage and solid/water waste disposal;
- provide conducive environment for consumers to be served safe food;
- provide good setting for the Relevant Authorities to conduct information, education and training programmes for Managers/Supervisors, vendors and consumers alike; and
- encourage activities of the Vendors' Association.

### **Rationale:**

To minimize the likelihood by vendors, to jeopardize the safety of food due to inability to provide safe and sanitary environment and proper conditions for the preparation and sale of safe food.

## **4.1 GENERAL REQUIREMENTS**

All vendors located in a street food centre should comply with all provisions stated in the officially recognized regulations applicable to street food vendors.

## **4.2 LOCATION, DESIGN AND CONSTRUCTION**

The location of any street food centre is to be approved beforehand by the relevant authority, having taken into consideration the provisions stated in *Section 3.1 - Location*, of these Guidelines.

The design of the street food centre shall:

- (a) be reviewed and approved beforehand by the relevant authority;
- (b) provide sufficient and adequate space and orderly placement of vendor stalls, carts, display cases, food preparation, handling, storing, serving and selling areas;
- (c) allow for the orderly flow of materials and goods, in and out of the centres, which will prevent possible routes of food contamination;
- (d) allow for the proper placement of client facilities, such as toilets, hand washing and eating facilities and be located or arranged in a manner that prevents routes of food contamination;
- (e) provide suitable, sufficient and properly placed areas for solid waste storage and crockery and appliance cleaning, washing and sanitizing;
- (f) be adequately ventilated to remove hazardous obnoxious gases and odours, cooking fuel fumes and other offensive airborne materials and provide a continuous and sufficient supply of fresh air to support the activities within the centre;
- (g) be provided with sufficient and adequate electrical power supply to support the vendors in the centre to operate appliances, equipment and other implements used in the preparation, handling, storage, serving and selling of food; and
- (h) have available an ample supply of potable water, under adequate pressure and of suitable temperature, with adequate facilities for its storage, where necessary, and distribution, and with adequate protection against contamination.

**Note:** Samples should be taken regularly, but the frequency should depend upon the origin and the usage of the water, e.g. more frequent from private supplies than from public supplies. Chlorine or other suitable disinfectants may be used. If chlorination has been employed checks should be made daily by chemical tests for available chlorine. The point of sampling should preferably be at the point of usage, but occasionally it would be useful to sample at the point of entry of the water to the establishment.

Street food centres shall be properly constructed in a manner using materials approved by the relevant authority, taking into consideration the provisions stated in Section 3.2, *Premises and rooms*, of these Guidelines. In addition to these provisions, street food centres should:

- (a) have smooth cement, glazed tile or tarmac paved floors, equipped with properly placed floor drains for the purpose of removing surface water and to facilitate cleaning and sanitizing;
- (b) have, where applicable, smooth non-permeable surface walls or partitions, such as glazed tile, to facilitate cleaning and sanitizing;
- (c) have, if applicable, a smooth non-absorbent ceiling to facilitate cleaning;
- (d) where applicable, provide sufficient artificial lighting, properly placed to facilitate food preparation, handling, storage, serving and selling for each vendor located at the centre;
- (e) provide for smoke hoods and flues above cooking ranges to enable the removal of fuel and cooking gases, smoke and fumes from the centre into the open air.
- (f) provide centralized or individualized appliance, crockery, utensil and other implement washing facilities, equipped with hot and cold running potable water, wash basins or sinks with appropriate drains to an approved sewer or drain system, detergent and sanitizing agents to satisfy the proper sanitary and complete cleaning needs of the vendors in the centre; and
- (g) comply with any other requirement of the relevant authority related to the structure of street food centres.

### 4.3 LIQUID AND SOLID WASTE

Pertaining to liquid waste disposal, street food centres are to:

- (a) be equipped with an efficient centralized or individual (for each vendor in the centre) liquid waste disposal system(s) approved by the relevant authority and of suitable size and design to exceed the level of demand for liquid waste disposal at peak levels of activity by the vendors in the centre;
- (b) maintain the liquid sewage disposal system in good working condition;
- (c) ensure that the liquid waste disposal system exits to a relevant authority approved sewage drain system capable of efficiently carrying away the liquid waste from the centre; and
- (d) comply with any other relevant authority requirements related to liquid waste disposal.

Regarding solid waste disposal, street food centres are to have an efficient system for disposal of solid waste complying with all solid waste disposal requirements of the relevant authority, to include:

- a) the allocation of an appropriate and separate amount of space for solid waste storage, located at a convenient but suitably distant location from food preparation, storage, handling, serving or selling areas to prevent contamination;
- b) sufficient number of suitably designed and constructed waterproof solid waste containers with tight fitting lids to adequately contain the volume of accumulated solid waste produced by vendor activity in one day. Containers should be lined with suitable disposable liners or inner containers for securing waste and which are easy to handle at time of disposal;
- c) the daily, and more often if necessary, disposal of solid waste from the street food centre to:
- d) rubbish bins approved, designed and intended for the centralized collection of solid waste by garbage service agencies; or
- e) other disposal methods authorized and approved by the relevant authority.
- f) routine inspection of solid waste disposal areas for the presence or harbourage of pests, taking any and all practical measures to eliminate and further prevent any infestation; and
- g) compliance with any other requirement of the relevant authority related to solid waste disposal.

### 4.4 CUSTOMER FACILITIES

Street food centres should have sufficient toilet facilities for each sex to accommodate the vendors, their employees and clientele, conveniently located but separate and apart from food preparation, handling, storage, serving and selling areas to prevent contamination of the food. The toilet facilities should be approved and subject to all requirements for such facilities by the relevant authority. Among other requirements the facilities should:

- (a) have walls of durable material, up to an appropriate height, which is easy to maintain, clean and disinfect;
- (b) be clean, free of bad odours and provided with a flushing system;
- (c) be well lit, ventilated and routinely cleaned and sanitized and maintained in good working condition;
- (d) include hand washing and drying facilities and properly supplied with soap and other needed supplies;

(e) contain posters instructing vendors and employees to wash hands thoroughly after each use of the toilet facilities before returning to work; and

(f) have doors which are equipped with self-closing devices.

## SECTION V - CONTROL OF OPERATION

### Objective:

To produce food which is safe and suitable for human consumption by:

- formulating design requirements with respect to raw materials, composition, processing, distribution, and consumer use to be met in the manufacture and handling of specific food items; and
- designing, implementing, monitoring and reviewing effective control systems.

### Rationale:

To reduce the risk of unsafe food by taking preventive measures to assure the safety and suitability of food at an appropriate stage in the operation by controlling food hazards.

## 5.1 REQUIREMENTS FOR INGREDIENTS

Every vendor should ensure the following:

Supply of ingredients, including ice, must be from known and reliable sources.

The food handling method employed should be such as to minimize the loss of nutrients.

Freshness and wholesomeness of ingredients to maintain quality and safety of food.

Transportation of ingredients should be made in a manner so as to prevent exposure to the environment, spoilage and contamination.

Only permitted food additives should be used and the amount added should follow the specifications provided.

## 5.2 COOKING AND HANDLING

Soak and thoroughly wash fresh vegetables and fruit whether for cooking or consuming raw, with sufficient running potable water, to remove adhering surface contamination.

Where appropriate, wash raw food before using in food preparation to reduce the risk of contamination. Never wash perishable raw food with other foods that will be consumed raw or in a semi-cooked state.

There should be an area for handling, storing, cleaning and preparing raw food ingredients, separate and apart from the cooked, street food display, handling and serving areas.

Thawing: Frozen products, especially frozen vegetables, can be cooked without thawing. However, large pieces of meat or large poultry carcasses often need to be thawed before cooking. When thawing is carried out as an operation separated from cooking this should be performed only in:

- a) a refrigerator or purpose-built thawing cabinet maintained at a temperature of 4°C; or
- b) running potable water maintained at a temperature not above 21°C for a period not exceeding 4 hours; or
- c) a commercial microwave oven only when the food will be immediately transferred to conventional cooking units as part of a continuous cooking process or when the entire, uninterrupted cooking process takes place in the microwave oven

**Note:** Hazards associated with thawing include cross-contamination from drip and growth of micro-organisms on the outside before the inside has thawed. Thawed meat and poultry products should be checked frequently to make sure the thawing process is complete before further processing or the processing time should be increased to take into account the temperature of the meat.

The time and temperature of cooking should be sufficient to ensure the destruction of non-spore forming pathogenic micro-organisms.

Water used for the purpose of drinking, preparation of hot or cold drinks and beverages should be of potable water quality, or of clean quality and boiled, or disinfected in any other way such as the use of an appropriate chemical agent.

Ice should be made from potable water. Ice should be handled and stored so as to protect it from contamination. Containers used to transport or store ice should meet the requirements for water containers as defined in these guidelines.

Food should not be re-heated more than once and only the portion of the food to be served should be re-heated. A temperature of at least 75°C should be reached in the centre of the food within one hour of removing the food from refrigeration. Lower temperatures may be used for reheating providing the time/temperature combinations used are equivalent in terms of destruction of microorganisms to heating to a temperature of 75°C.

Utensils used for tasting food should be washed immediately after each use.

### **5.3 SERVING FOOD**

Every vendor should observe the following:

All vendors purchasing street foods for the purpose of serving or selling must assure that such food is from licensed and reliable sources.

Cooked street foods should not be handled with bare hands. Clean tongs, forks, spoons or disposable gloves should be used when handling, serving or selling food.

All crockery used should be clean and dry and not handled by touching the food contact surfaces.

Plates filled with food should not be stacked one on top of the other during display, storing or serving.

Food grade packing materials should be used.

Never blow into plastic bags, wrappers or packages used for food.

All beverages offered for sale should be dispensed only in their individual original sealed containers or from taps fitted to bulk containers and made of food grade plastic or other suitable material. Bulk containers should be covered with tight fitting lids.

Cut fruit or other foods ordinarily consumed in the state in which they are sold may be set out in an enclosed display case, cabinet or similar type of protective device and should be displayed in a manner which will not affect the wholesomeness and cleanliness of such foods.

Food handlers should avoid handling money. If this is unavoidable, the food handler should wash his hands after handling money and before handling food again.

Ready-to-eat foods intended for continuous serving should be protected from environmental contamination and kept at the following holding temperatures:

- a) for food served hot.....60°C or above;
- b) for food served cold.....7°C or below;



- c) for food served frozen..–18°C or below.

A food warmer should be used to maintain continuous holding temperatures (Section 5.3.10 (i)), and should not be used for re-heating purposes (Section 5.2.8).

#### **5.4 UNSOLD FOOD**

All unsold cooked food and prepared beverages that cannot be properly preserved should be disposed of in a sanitary manner at the end of the day.

#### **5.5 TRANSPORTATION OF STREET FOODS**

Street foods which require transportation to the point of sale should be placed in a well protected, covered and clean container to avoid contamination.

Any vehicle used in transporting food should be clean and in good condition, appropriately equipped to accommodate any special requirements of the food being transported and provide protection from environmental contamination.

Perishable foods such as milk, and milk products etc. should be transported to the point of sale in an insulated container maintained at a maximum temperature of 4°C.

Street foods should not be transported together with raw food and ingredients, animals, toxic substances and any other materials which may contaminate the food.

#### **5.6 USE AND MAINTENANCE**

Conveyances and containers for transporting food should be kept in an appropriate state of cleanliness, repair and condition. Where the same conveyance or container is used for transporting different foods, or non-foods, effective cleaning and, where necessary, disinfection should take place between loads.

#### **5.7 FOOD STORAGE**

The food should at all times be kept clean and free from contamination, and be adequately protected from pests, such as rats, mice, flies, cockroaches, ants etc., environmental contaminants, and stored at proper temperatures where appropriate.

Readily perishable food should be placed or stacked so that it is not likely to be contaminated by contact with raw food, pet food, toxic materials or any other materials which may cause contamination.

Once cleaned, following the requirements of Sections 5.2.1 and 5.2.2, the bulk of perishable raw food including wet milled legumes, cereals or pulses should be stored in clean separate containers preferably placed in a clean ice box, a refrigerator or a freezer to prevent spoilage.

Refrigerators and freezers should not be overloaded and their temperatures should be maintained at a maximum of 4°C and –18°C or below, respectively.

The principle, “First in, first out” should be applied to stock rotation.

Date marking on all food containers shall be checked before the food is used. Expired food shall not be sold or used for the preparation of food.

#### **5.8 KEY ASPECTS OF HYGIENE CONTROL SYSTEMS**

##### ***5.8.1 Time and Temperature Control***

Inadequate food temperature control is one of the most common causes of foodborne illness or food spoilage. Such controls include time and temperature of cooking, cooling, processing and storage. Systems should be



in place to ensure that temperature is controlled effectively where it is critical to the safety and suitability of food.

Temperature control systems should take into account:

- the nature of the food, e.g. its water activity, pH, and likely initial level and types of micro-organisms;
- the intended shelf-life of the product;
- the method of packaging and processing; and
- how the product is intended to be used, e.g. further cooking/processing or ready-to-eat.

Such systems should also specify tolerable limits for time and temperature variations.

Temperature recording devices should be checked at regular intervals and tested for accuracy.

### ***5.8.2 Microbiological Cross-contamination***

Pathogens can be transferred from one food to another, either by direct contact or by food handlers, contact surfaces or the air. Raw, unprocessed food should be effectively separated, either physically or by time, from ready-to-eat foods, with effective intermediate cleaning and where appropriate disinfection.

Access to processing areas may need to be restricted or controlled. Where risks are particularly high, access to processing areas should be only via a changing facility. Personnel may need to be required to put on clean protective clothing including footwear and wash their hands before entering.

Surfaces, utensils, equipment, fixtures and fittings should be thoroughly cleaned and where necessary disinfected after raw food, particularly meat and poultry, has been handled or processed.

### ***5.8.3 Physical and Chemical Contamination***

Systems should be in place to prevent contamination of foods by foreign bodies such as glass or metal shards from machinery, dust, harmful fumes and unwanted chemicals. In manufacturing and processing, suitable detection or screening devices should be used where necessary.

## **5.9 INCOMING MATERIAL REQUIREMENTS**

Only wholesome and satisfactory raw materials and ingredients should be accepted for use in preparing food. No raw material or ingredient should 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 should be identified and applied.

Stocks of raw materials and ingredients should be subject to effective stock rotation.

## **5.10 WATER**

### ***5.10.1 In contact with food***

Only potable water, should be used in food handling and processing, with the following exceptions:

- for steam production, fire control and other similar purposes not connected with food; and
- in certain food processes, e.g. chilling, and in food handling areas, provided this does not constitute a hazard to the safety and suitability of food (e.g. the use of clean sea water).

Water recirculated for reuse should be treated and maintained in such a condition that no risk to the safety and suitability of food results from its use. The treatment process should be effectively monitored.

Recirculated 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.

### **5.10.2 As an Ingredient**

Potable water should be used wherever necessary to avoid food contamination.

### **5.10.3 Ice and Steam**

Ice should be made from water that complies with Section 3.4.1. Ice and steam should be produced, handled and stored to protect them from contamination.

Steam used in direct contact with food or food contact surfaces should not constitute a threat to the safety and suitability of food.

## **5.11 MANAGEMENT AND SUPERVISION**

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. Managers and supervisors should 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.

## **5.12 STREET FOOD ADVISORY SERVICE**

To facilitate the enforcement of the code of practice they have developed, the relevant authority should provide Managers and Supervisors whose role would be:

- to work with vendors offering them on-site advice and guidance to improve their operations in accordance with the requirements of the Guidelines
- to participate in the design and/or delivery of the formal training of vendors which is to be provided by the authorities in view of issuance and renewal of licenses;
- to work in close collaboration with the enforcement personnel, including the officers in charge of registration and renewal of licenses, so that the guidelines is well understood and correctly applied;
- when applicable, to train the enforcement personnel and regularly organize joint inspections to monitor progress in the application of the code of practice; and
- to inform consumers as per Section 7.7 of these Guidelines.

Managers and Supervisors should be good communicators, familiar with the requirements of the Guidelines, and have good understanding of both problems of the vendors and the protection of consumers.

Managers and Supervisors should possess the trust and respect of vendors, consumers and enforcement personnel.

The Managers and Supervisors should be as far as possible conversant with the Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 3 (1997)).

Street Food Advisory Services should be established with the necessary capacities to carry-out their mission effectively.

## **SECTION VI - PERSONAL HEALTH**

### **Objectives:**

To ensure that those who come directly or indirectly into contact with food are not likely to contaminate food

by:

- maintaining an appropriate degree of personal cleanliness;
- behaving and operating in an appropriate manner.

**Rationale:**

People who do not maintain an appropriate degree of personal cleanliness, who have certain illnesses or conditions or who behave inappropriately, can contaminate food and transmit illness to consumers.

## **6.1 HEALTH STATUS**

Every vendor, helper, or food handler, during the conduct of his business, shall wear an identification tag if issued and required by the relevant authority.

People known, or suspected, to be suffering from, or to be a carrier of a disease or illness likely to be transmitted through food, should not be allowed to enter any food handling area if there is a likelihood of their contaminating food. Any person so affected should immediately report illness or symptoms of illness to the management.

Medical examination of a food handler should be carried out if clinically or epidemiologically indicated.

## **6.2 ILLNESS AND INJURIES**

Conditions which should be reported to management so that any need for medical examination and/or possible exclusion from food handling can be considered, include:

- jaundice;
- diarrhoea;
- vomiting;
- fever;
- sore throat with fever;
- visibly infected skin lesions (boils, cuts, etc.); and
- discharges from the ear, eye or nose.

## **6.3 PERSONAL CLEANLINES**

Food handlers should maintain a high degree of personal cleanliness and, where appropriate, wear suitable protective clothing, head covering, and footwear. Cuts and wounds, where personnel are permitted to continue working, should be covered by suitable waterproof dressings. Fingernails should be kept short and clean at all times and hair should be kept clean and tidy and should be covered during operation.

Personnel should 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; and
- after handling raw food or any contaminated material, where this could result in contamination of other food items; they should avoid handling ready-to-eat food, where appropriate.

## 6.4 PERSONAL BEHAVIOUR

People engaged in food handling activities should refrain from behaviour which could result in contamination of food, for example:

- smoking;
- spitting;
- chewing or eating;
- sneezing or coughing over unprotected food.

Personal effects such as jewellery, watches, pins or other items should not be worn or brought into food handling areas if they pose a threat to the safety and suitability of food.

No vendor is allowed to use the stall as a sleeping or dwelling place, or for any other personal activity.

## 6.5 VISITORS

Visitors to food processing or handling areas should, where appropriate, wear protective clothing and adhere to the other personal hygiene provisions in this section.

## SECTION VII - TRAINING

### Objectives:

Those engaged in food operations who come directly or indirectly into contact with food should be trained, and/or instructed in food hygiene to a level appropriate to the operations they are to perform.

### Rationale:

Training is fundamentally important to any food hygiene system. Inadequate hygiene training, and/or instruction and supervision of all people involved in food related activities pose a potential threat to the safety of food and its suitability for consumption.

## 7.1 AWARENESS AND RESPONSIBILITIES

Food hygiene training is fundamentally important. All personnel should be aware of their role and responsibility in protecting food from contamination or deterioration. Food handlers should have the necessary knowledge and skills to enable them to handle food hygienically. Those who handle strong cleaning chemicals or other potentially hazardous chemicals should be instructed in safe handling techniques.

## 7.2 TRAINING PROGRAMMES

Factors to take into account in assessing the level of training required include:

- the nature of the food, in particular its ability to sustain growth of pathogenic or spoilage micro-organisms;
- the manner in which the food is handled and packed, including the probability of contamination;
- the extent and nature of processing or further preparation before final consumption;
- the conditions under which the food will be stored; and
- the expected length of time before consumption.

### **7.3 INSTRUCTION AND SUPERVISION**

Periodic assessments of the effectiveness of training and instruction programmes should be made, as well as routine supervision and checks to ensure that procedures are being carried out effectively.

Managers and supervisors of food processes should 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.

### **7.4 REFRESHER TRAINING**

Training programmes should be routinely reviewed and updated where necessary. Systems should be in place to ensure that food handlers remain aware of all procedures necessary to maintain the safety and suitability of food.

### **7.5 TRAINING OF VENDORS**

Every vendor, helper or food handler shall undergo a basic training in food hygiene prior to licensing and further training as required by the relevant authority. Training is to be conducted by the relevant authority or other institutions recognized or approved by the relevant authorities.

Vendors should also be made aware of their responsibility to consumers and be informed of available credit facilities and other sources of finance to assist and improve their businesses.

Simple posters illustrating the “dos” and “don’ts” of street food preparation and vending should be widely and prominently displayed in relevant places for the benefit of both vendors and consumers.

### **7.6 VENDOR’S ASSOCIATIONS**

The formation of street food vendor associations or cooperatives should be encouraged to provide a liaison point with the relevant authorities in view of facilitating the implementation of control measures

### **7.7 CONSUMER EDUCATION**

Health education programmes should cover general food hygiene. In particular consumers should be informed of the relationship between time/temperature control and foodborne illness.

The relevant authority should inform consumers through posters, the media and publicity campaigns about hazards associated with street foods and the steps the authority requires street food vendors to take to minimize those hazards.

Consumers should also be informed of their responsibility in ensuring that they do not contaminate, dirty or litter street food vending sites.

Street Food Advisory Services should have the leading role in the elaboration of information material and in the monitoring of consumers’ education.