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Food Safety Code of practice for Food Services

Food service establishment Guidelines















Table of Contents		
1. PURPOSE		5
2. SCOPE		5
3. DEFINITIONS		5
4. RELATED DOCUMENTS		7
4.1 Law:		7
4.2 List of relevant GSO:		7
5. RESPONSIBILITY		8
6. PART A: PREREQUISITE PROGRA	AMS	9
6.1 BUILDING EXTERIOR & CONSTR	RUCTION	9
6.1.1 Surrounding Grounds.		9
6.1.2 Adjacent Properties		9
6.1.3 Building Exterior		9
6.1.4 Documents and Records		9
6.2 BUILDING INTERIOR		10
6.2.1 Floors, walls and ceilings		10
6.2.2 Doors and windows		10
6.2.3 Lighting		10
6.2.4 Ambient temperature		10
6.2.5 Air quality and ventilation		10
6.2.6 Water quality		10
6.2.7 Drainage and sewage systems		11
6.2.8 Building Services		11
6.2.9 Staff facilities		11
6.2.10 Documents and records		12
6.3 WASTE DISPOSAL		13
6.4 PEST MANAGEMENT		13
6.4.1 Pest management program		13
6.4.2 Pest management equipment		13
6.4.3 Presence or evidence of pests, bir	ds and animals	14
6.4.4 Documents and records		14
6.5 CLEANING AND DISINFECTION		15
6.5.1 Cleaning and Disinfection Method	ds	15
6.5.2 Cleaning and Disinfection Program	m	16
6.5.3 Cleaning and Disinfection Chemic		17
6.5.4 Equipment Used for Cleaning and		17
6.5.5 Cleaning and Disinfection of uten	sils and processing environment	17
6.5.6 Documents and Records		17
6.6 EQUIPMENT AND UTENSILS		18
6.6.1 Design and material of equipmen	t	18
6.6.2 Equipment and utensils use		18
6.6.3 Storage		18
6.6.4 Maintenance		18
6.6.5 Calibration		18
6.6.6 Documents and records		19
6.7 PERSONNEL		19

Food Safety Code of Practice for Food Services

6.7.1 Personal Hygiene Policies	19
6.7.2 Personal Hygiene Practices	20
6.7.3 Staff movements	20
6.7.4 Personal Protection Equipment (PPE)	20
6.7.5 Handwashing	21
6.7.6 Food handlers' health	21
6.7.7 Food handlers' skills, knowledge and training	21
6.7.8 Documents and Records	22
6.8 RECEIVING	22
6.8.1 Receiving principles	22
6.8.2 Temperature control	23
6.8.3 Documents and Records	23
6.9 STORAGE	24
6.9.1 Storage principles	24
6.9.2 Dry storage	24
6.9.3 Refrigerated (Chilled) storage:	24
6.9.4 Frozen storage:	25
6.10 TRANSPORTATION	25
6.10.1 Transportation Vehicles	25
6.10.2 Loading and unloading	25
6.10.3 Temperature control	26
6.10.4 Documents and Records	26
7. PART B: OPERATION CONTROL	26
7.1 PREPARATION	26
7.1.1 Preparation	26
7.1.2 Ingredient Thawing	27
7.1.3 Weighing	27
7.1.4 Mixing	27
7.1.5 Food Further Processing (Peeling, Slicing, Cutting and Dicing)	27
7.1.6 Sanitation Wash	28
7.1.7 Documents and Records	28
7.2 COOKING	28
7.2.1 Cooking Method	28
7.2.2 Taking Cooking Temperatures	29
7.2.3 Controls after Cooking	29
7.2.4 Documents and Records:	29
7.3 COOLING	29
7.3.1 Cooling Methods	29
7.3.2 Taking Cooling Temperatures	30
7.3.3 Controls after Cooling	31
7.3.4 Documents and Records	31
7.4 BAKING (BREADS/CAKES/PASTRIES)	31
7.4.1 Additives	31
7.4.2 Proving (Leavening)	31
7.4.3 Filling/Icing/Topping	31
7.4.4 Baking	32
7.4.5 Documents and Records:	32

7.5	REHEATING	32
7.5.	Reheat method	32
7.5.2	2 Taking Reheating Temperatures	32
7.5.3	3 Controls after Reheating	33
7.5.4	Documents and Records	33
7.6	FOOD DISPLAY	33
7.6.	Food Display Method	33
7.6.2	2 Taking Display Temperatures	34
7.6.3	3 Chilled Displays	34
7.6.4	Hot Hold Displays	34
7.6.5	5 Ambient Perishable Displays	34
7.6.6	Serving from Displays	34
7.6.7	Documents and Records	35
7.7	ICE CUBES MAKING MACHINE	35
7.7.	Commercial Ice Making Machine	35
7.7.2	2 Documents and Records	35
7.8	PACKING	35
7.8.	Packaging Source	35
7.8.2	Packaging Storage	35
7.8.3	3 Documents and records	35
7.9	END PRODUCT	36
7.9.	Final product verification	36
	2 Documents and Records	36
7.9.3	Retention samples for food services serving high risk consumers	36
7.10	LABELLING	37
8. P	ART C: MANAGEMENT	37
8.1	Traceability	37
8.1.	Traceability at receiving:	37
8.1.2	2 Traceability at storage	37
	3 Traceability at processing	37
	Traceability at Display/Dispatch/Transportation	38
	Documents and Records	38
8.2	RECALL PLAN	38
8.3	NON- CONFORMANCES	38
	Control of non-conformance or action taken in case of any non-conformance	38
8.3.2	2 Identification of Non-Conforming Product, Equipment or Areas	38
	Managing Non-Conformances	39
	Documents and Records	39
	CUSTOMER COMPLAINT HANDLING	34
	Managing Complaint	34
	2 Documents and Records	40
	RECORDS/FORMATS/SUPPLEMENTS	40
	REFERENCES	40
	ANNEXES	41
	ex 1: Documentation requirements	41
	ex 2: Records templates	42
Reco	ord template 1 – Pest control Activity records	43

Food Safety Code of Practice for Food Services

Record template 2 – Cleaning records	44
Record template 3 – Maintenance records	45
Record template 4 - Staff training records	46
Record template 5- Staff sickness records	47
Record template 6 – Supplier List	48
Record template 7 – Receiving records (traceability)	49
Record template 8.1 - Cold storage temperature records	50
Record template 8.2 - Cold storage temperature records	51
Record template 9 – Transported food & Transportation vehicles	52
Record template 10 – Thawing records	53
Record template 11 – Cooking temperature records	54
Record template 12 – Cooling temperature records	55
Record template 13 – Reheating records	56
Record template 14– Food temperature records in cold and hot display (buffets)	57
Record template 15 – Allergens records	58
Record template 16 – Supplied Food records	59
Record template 17 – Non-conformance records	60
Record template 15 – Customer complaints records	61

1. PURPOSE

The Food Safety and Environmental Health Department (FSEH) at the Ministry of Public Health of Qatar (MoPH) has prepared this document to help food services to comply with Qatari laws and regulations to ensure the people of Qatar are provided with safe products.

This Code of Practice explains how to meet the mandatory legislative requirements. In addition, the document details the food safety hygiene measures based on a HACCP approach that will be looked at and assessed by the FSEH inspectors during their official control activities and provides suggested control measures to the food service establishment to demonstrate compliance.

The Code of Practice is available at MoPH website www.moph.gov.ga.

2. SCOPE

This is a guidance document for the Person-In-charge (PIC) at a food service establishment in Qatar that prepares and serves food to be eaten immediately on site or off site for example restaurants, caterers and central kitchens.

This document covers:

- 1. the prerequisite programs on building, equipment, pest control, personnel, cleaning and disinfection.
- 2. the requirements for operation control from preparation to display, packaging, labeling and sampling of a ready-to-eat food meant for direct consumption.
- 3. the food safety management requirements on traceability, recall, non-conformity and complaint handling.

This document does not cover construction and building layout as these are requirements for the licensing process.

Further guidance material will follow for specific types of food services operations.

3. **DEFINITIONS**

Person in charge (PIC): means the person legally assigned by the food service establishment owner or management to ensure compliance with the food safety legislative requirements in this specific food service establishment.

Food handler: means any person employed in or operating a food service establishment, including but not limited to an employer, the permit holder, a person in charge, a person having supervisory or managerial duties, a person on the payroll, a family member, a volunteer, a person performing work under contractual agreement, an staff or other natural person who handles, stores, transports, prepares, manufactures, serves, or sells food, or who comes in contact with eating or cooking utensils or other equipment used in the handling, preparation, manufacture, service, or sale of food, or any other person working in a food service establishment.

Food service establishment or food service means any place where food is prepared and intended for individual portion service and includes the site at which the individual portions are provided, whether consumption occurs on or off the establishment s.

The term excludes food processing establishments, retail food stores, private homes where food is prepared or served for family consumption.

HACCP: Hazard Analysis of Critical Control Points is a methodology and a management system. It is used to identify, prevent, and control food safety hazards. HACCP management systems use the following methodology:

Conduct a hazard analysis.

- Identify critical control points (CCPs).
- Establish critical limits for each critical control point.
- Develop procedures to monitor critical control points.
- Design corrective actions to handle critical limit violations.
- Create a food safety record keeping system.
- Validate and verify your safety system.

Utensils: includes kitchenware, tableware, glasses, cutlery or other similar items used in the handling, preparation, processing, displaying, serving, dispensing, storing, containing or consuming of food.

Material Safety Data Sheet / Safety Data Sheet (MSDS / SDS):

a comprehensive technical bulletin detailing physicochemical, compositional, first aid, human health and environmental hazard, toxicological, ecological, precautionary, personal protection/exposure control, handling, storage, disposal, firefighting, accidental release, stability and reactivity, transport and regulatory information on a substance or product.

National Sanitation Foundation (NSF): non-profit American organization National Sanitation Foundation, trusted source to provide certificate on chemicals intended use and claims.

Potentially hazardous foods: are foods that must be kept at a particular temperature to minimise the growth of food poisoning bacteria that may be in the food, or to stop the formation of toxins. Examples of potentially hazardous foods include:

- raw and cooked meat, or foods containing meat such as casseroles, curries and lasagne
- dairy products such as milk, custard and dairy-based desserts
- seafood (excluding live seafood)
- processed or cut fruits and vegetables, such as salads
- cooked rice and pasta
- foods containing egg, beans, nuts or other protein-rich food such as quiche and soy products
- foods that contain any of the above foods including sandwiches and rolls.

High risk consumer or high risk population are People with a Higher Risk of Food Poisoning. Anyone can get food poisoning, but certain groups of people are more likely to get sick and to have a more serious illness. Their bodies' ability to fight germs and sickness is not as effective for a variety of reasons. These groups of people are:

- Adults age 65 and older
- Children younger than 5 years
- People whose immune systems are weakened due to illness or medical treatment
- Pregnant women

4. RELATED DOCUMENTS

4.1 Law:

Law No. 8 of 1990 Regulation of Human Food Control

4.2 List of relevant GSO:

- GSO 21/ 1984 Hygienic regulations for food plants and their personnel.
- GSO 323/ 1994 General requirements for transportation and storage of chilled and frozen foods.
- GSO 969/1997 Stores for frozen and chilled foodstuff- Part II: general requirements.
- GSO 1694 /2005 General principles of food hygiene.
- GSO1060 / 2002 General requirements for preparation and handling of shawarma
- GSO 1909 /2009 Requirements for handling of ready-to-eat foods.
- GSO 2309/ 2013- General requirements for food shops and Establishments.
- GSO 1971 /2009- Hygienic conditions for School Canteens and handled food.

Any other relevant GSO

5. **RESPONSIBILITY**

Position / Entity	Roles & responsibilities
Food Safety and Environmental Health (FSEH) Inspector at MoPH	 Inspector appointed by the FSEH Department is responsible for: conducting inspections to monitor and enforce compliance. assessing the effectiveness of the food safety management system (FSMS) of the establishment. investigating complaints and food poisoning outbreaks.
Food service owner/ manager	 Complying with Qatari food law and regulations, GSO standards, and this code of practice. providing adequate design, construction, equipment and maintenance of food service facilities in accordance with Qatari standards e.g. GSO 21/1984. providing staff with adequate training nominating Person- In -Charge and when needed its delegate. In some small businesses a PIC can be an external contractor. developing and reviewing a food safety management system (FSMS). implementing and complying with the food safety management system (FSMS). arranging for audit when the food service is certified to an international recognized FSMS. managing non-compliances identified during an audit or inspection by correcting non-compliances ensuring the food service establishment is registered on the MoPH website.
Person In charge PIC for example, he can be the quality manager/ hygiene supervisor	 registering the food service establishment at MoPH website updating registration profile e.g. adding new activities. monitoring and implementing food hygiene requirements at the food service establishment being available during MoPH inspection providing MoPH will all evidence of compliance to requirements per example relevant documentation cooperating with MoPH during inspection and post inspection actions and decisions. notifying MoPH in case of identification of a potential hazard and risk to public safety and the corrective action taken e.g. recall. A PIC shall possess the knowledge and skills in the general food hygiene requirements and able to demonstrate the causes and prevention of food safety hazards in the facility. A PIC has the authority to supervise and provide clear instructions and guidance to the personnel in matters relating to product safety.

6. PART A: PREREQUISITE PROGRAMS

6.1 **Building Exterior & Construction**

6.1.1 Surrounding Grounds.

- The surrounding grounds shall be kept clear of accumulation of loose debris (rubbish, dirt etc.) to
 avoid material which can be blown into the establishment.
- 2. The surrounding grounds are adequately drained.
- 3. The surrounding grounds are free from excessive vegetation growth which provide habitats for pests.
- 4. Vehicle access ways (drives, loading & unloading areas) should be sealed to minimize dust and reduce potential for water pooling.

6.1.2 Adjacent Properties

- 1. The adjacent properties shall not introduce any risks to the food handling area, e.g.:
 - a) It generates fumes/dust which could drift into the food handling areas. If yes, there shall be measures to minimize the risk, e.g. Filters on air intakes, Self-closing doors etc.
 - b) It poses a risk for chemical spills which could run onto the processing site and could leak into the processing area or be accidentally carried in by staff or equipment, e.g. footwear.
 - c) It provides a habitat or attract pests, e.g. have food waste exposed. If Yes, there shall be sufficient controls around pest proofing, e.g. bait stations/traps on the affected boundary.

6.1.3 Building Exterior

- 1. The building shall be pest proof, e.g.:
 - a) There shall be no gaps, holes or crack in the walls or roof which would allow pest access to the processing and storage areas.
 - b) All external drains or pipes/conduits shall be capped/covered to prevent entry of pests
 - c) Doors shall close correctly and there are no gaps around the door or damage (Holes).
 - d) External doors should be self-closing.
 - e) Windows shall have no damage and shall be kept closed or measures in place to prevent pest and dust entry into manufacturing and storage areas.
- 2. The building shall be weatherproof, e.g.: There are no gaps, holes or cracks in the walls or roof which would allow rainwater or wind/dust access to the processing/storage areas.

6.1.4 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

a) Building Exterior Inspections reports/ records.

6.2 **Building Interior**

6.2.1 Floors, walls and ceilings

- The floors, walls, ceilings and other surfaces shall be smooth, free of cracks or peeling paint and easy to clean and disinfect.
- 2. There shall be no gaps, holes or cracks in the walls or ceilings which could allow rainwater or wind/dust access to the processing areas.

6.2.2 Doors and windows

- 1. The doors and windows shall be smooth non-absorbent surfaces, free of cracks or peeling paint and easy to clean and disinfect.
- Doors shall close correctly and there should be no gaps around doors or damage.
- 3. Ideally there should be no direct access between the outside and the processing area. If there is one, then the door shall always be closed when not in use and fitted with a screen or plastic curtains to help prevent the introduction of contaminants, e.g. insects.
- 4. External doors should be self-closing.
- 5. Internal windows shall have no damage.

6.2.3 Lighting

- 1. Food processing and storage areas must be adequately illuminated to allow operators of equipment and other staffs to see clearly.
- 2. The light intensity should be not less than the following:
 - 540 lux in processing areas.
 - 110 lux in other areas such as the receiving areas, walk-in refrigerators/freezers, storage areas, locker rooms, and restrooms.
- 3. Overhead lights shall be covered with shields to prevent glass from contaminating food or cause serious injuries in case of breakage.

6.2.4 Ambient temperature

1. The temperature inside the food service establishment is around 25°C.

6.2.5 Air quality and ventilation

- 1. All storage areas shall have sufficient ventilation to keep them free of excessive heat, steam, condensation, dust, vapors, obnoxious odors, smoke and fumes.
- 2. Air handling units shall demonstrate good cleanliness conditions, free of mold, grease, dust and dirt.

6.2.6 Water quality

- 1. There shall be adequate supply and pressure of hot and cold potable water.
- 2. There shall be potable water used onsite.
- 3. There shall be measures in place to ensure the water is potable water such as installing transparent tap water filters.
- 4. There shall be measures in place to prevent the accumulation of sediments, leaf, litter, and other objects such as insects and animals, in the tank.
- 5. There shall be a cleaning disinfection program for all pipes and water storage tanks, with a disinfection frequency of 6 to 12 months.
- 6. There shall be a schedule for water analysis with an MoPH approved laboratory.

6.2.7 Drainage and sewage systems

- 1. Drainage system shall not be a source of contamination.
- 2. All food processing areas shall be adequately drained to prevent pooling of water on floors, which may be a source of product contamination.
- 3. Drains shall be equipped with covers and traps to collect solid materials that could clog them.
- 4. Drain covers and traps shall be emptied and cleaned regularly this includes grease traps.
- 5. Drains shall flow away from processing areas i.e. away from any high risk/care area.
- 6. All sewage shall be connected to the municipal system or managed using an approved method of disposal.
- 7. Any blockages to the sewage system must be immediately dealt with. Any evidence of sewage in the processing area is a critical issue.

6.2.8 Building Services

1. In the event of a service failure as a power cut or loss of water there shall be a contingency plan in place to manage the situation.

6.2.9 Staff facilities

This covers the facilities on site for staff use during their time at work. These include toilets, locker rooms, kitchen and dining areas.

- 1. All staff facilities shall be clean, tidy and well maintained.
- 2. There shall be dedicated cleaning equipment for each type of staff facility (e.g. toilets, locker rooms and kitchen/eating areas).
- 3. The cleaning equipment shall be stored separately to avoid cross contamination with other equipment (e.g. toilet cleaning separate from kitchen cleaning equipment).
- 4. Dedicated areas for smoking shall be defined and controls around these areas to prevent cross contamination, e.g. uncovered area, away from food and ingredients, with adequate waste disposal facilities. It shall comply with MoPH requirements for smoking.

6.2.9.1 Locker rooms and changing facilities

- 1. The site should have adequate changing facilities for personnel
- 2. Food handling personnel should be able to move from changing facilities to production areas without going outside
- 3. Ventilation from changing facilities should not enter production areas and shall no enter critical hygiene areas or exit close to exposed product.
- 4. There should be lockers made available to each staff with space between floor and bottom of the locker for cleaning.
- 5. Changing facilities should not open directly into production or storage areas and should be equipped with self-closing doors.
- 6. In changing areas there shall be facilities to maintain segregation of clean and dirty clothes.
- 7. Facilities should be available for staff to remove and store their PPE during breaks and at the end of shifts (if not cleaned daily).

6.2.9.2 Toilets

- 1. There should be a minimum of 1 toilet cubicle and one hand-washing sink, ideally one for every 10 staff on site.
- 2. Toilets shall be segregated from the changing/locker rooms.

- 3. All toilets shall have suitable doors.
- 4. PPE shall not be stored or hung in the toilets area.
- 5. Toilets should not open directly onto production, packing or storage areas.
- 6. All toilets shall be separated from production areas and other food handling areas by suitable intervening space such as corridors or self-closing doors.
- 7. Ventilation from toilets should not enter production areas and shall not enter critical hygiene areas or exit close to exposed product.

6.2.9.3 Hand washing facility

- 1. All sites shall have adequate number of hand washing facilities available and accessible to staff.
- 2. There shall be suitable hand washing facilities available for use after the toilets and before entry into the production areas/ kitchen.
- 3. Hand washing facilities shall be kept clean and tidy, and waste bins shall be emptied regularly.
- 4. Suitable hand washing facilities for food handlers should have:
 - a) hands free station (e.g. foot, sensor or knee operated)
 - b) Approved soap and hand sanitizer.
 - c) Disposable paper towels in dispensers.
 - d) Adequate supply and waste disposal facilities.
 - e) Air dryers and multi-use towels are not recommended.
 - f) Warm water
 - g) Signage showing hand washing instructions and reminders displayed in appropriate languages and locations.

6.2.9.4 Kitchen and dining facilities for staff

- 1. It is recommended to provide adequate facilities for staff to eat and drink during working hour. This can include providing a cooking facility.
- 2. If provided the kitchen and dining facilities shall be:
 - a) clean, tidy, well maintained, and supplied with adequate waste disposal equipment.
 - b) separate from the production and storage areas.
 - c) Equipped with a dishwashing facility separate from hand washing or the processing area.
- 3. There shall be adequate food storage facilities for staff (can include fridges) that is separate from production storage.

6.2.10 Documents and records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

- a) Building interior inspections reports/records includes maintenance, cleaning and sanitization records for example for air handling units and duct system, water pipes and water storage tanks.
- b) Laboratory reports of the facility's water quality.
- c) Contingency plan for service failure.

6.3 Waste disposal

- 1. External waste disposal containers shall be fitted with lids and kept closed.
- 2. External waste bins shall be emptied regularly and shall not be in any way a source of contamination.
- 3. When required, a food service establishment may need a separate waste storage area that meets criteria of good ventilation, frequency of cleaned, cooling system, appropriate location i.e. away from food storage / preparation areas...
- Internal bins shall be fit for purpose. Where practical bins should be equipped with a foot operated lids and with a tight cover.
- 5. Internal bins shall not be overflowing and not be exceeding 75% of its fill volume.
- 6. Internal bins shall be equipped with waste plastic bag suitable to its size.
- 7. Internal bins shall be emptied, cleaned, and disinfected regularly.

6.4 Pest Management

6.4.1 Pest management program

- 1. Pest management activities in food service establishments shall be done by a specialized pest control company, the contract of the pest control company shall be valid, and a copy is available.
- 2. An effective pest management program for the exterior and interior of the establishment should be available and implemented.
- 3. The program should be developed based on a thorough inspection visit by the specialist to identify any existing or recurrent pest problem. The pest control program shall include:
 - a) The name of the pest management company.
 - b) The name of the person at the establishment assigned responsibility for pest control.
 - c) Programs for rodents, crawling, walking and flying pests.
 - d) Programs for the management of birds and animals (where relevant)
 - e) A list of chemicals used, the concentration, the location where applied, method and frequency of application.
 - f) A map of trap locations, baits and traps (inside/outside) and insect killers (inside) in appropriate numbers and strategic placement.
 - g) Records of the type and frequency of inspection to verify the effectiveness of the program. (e.g. surveillance, response to pest infestation, corrective action visit)
 - h) Records of the cause and steps taken to control of any existing or recurrent problem.

6.4.2 Pest management equipment

- 1. Pest management equipment (e.g. bait stations, insect killers, curtains, rodent traps) shall be operating correctly, properly maintained and sited appropriately to reduce the risk of contamination by pests, of raw materials, ingredients, finished products and surfaces.
- 2. The preference for fly control is Glue Board type units. Electric Fly Killers may be used, they shall be located away from exposed product and away from entry point not to attract insect inside the building and located at the adequate height.
- 3. Insect killers light bulbs shall be maintained at a frequency to function properly
- 4. Dead pests and insects shall be frequently removed ensuring no possible contact with food.
- 5. The presence and numbers of dead pests should be monitored to aid in the detection of an infestation or an increase in endemic pests (such as flying insects).
- 6. The air curtain at the receiving area shall be used efficiently to avoid the entry of insects and its size shall be suitable for the door size. It is preferable to use the bait in block form, instead of the pellets, granules and powders, to prevent the pests from transporting the bait and contaminating food.
- 7. Poisonous rodenticides shall not be used in food processing or storage areas to prevent possible contact with food, packaging material, or equipment.
- 8. Application of pesticides should not be carried during operation.
- 9. Pesticides shall be approved and used in accordance with labels or applicable laws.
- 10. Pesticides shall be kept in secure storage outside the food service establishment, with access being limited to authorized personnel.

6.4.3 Presence or evidence of pests, birds and animals

Conduct visual inspection of the establishment to ensure that:

- 1. The food establishment shall be free of pests, i.e.:
 - a) Live insects, rodents, and other animals are not found in the food establishment and in the food transport vehicles.
 - b) There is no signs or evidence of pest activity in the food establishment and in the food transport vehicle e.g. Bait aren't taken, no damage of food containers, no rodent/bird feces, dead animals, webbing, smells, no stored product pests (moths, weevils) ...
- 2. The food establishment shall be free of birds and animals, except for:
 - a) Fish in aquarium in some establishments like restaurants.
- 3. The conditions that allow pests entry and habitation shall be controlled (Refer Building Exterior, Interior and Sanitation Modules)

6.4.4 Documents and records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

- a) Record of pest control activities (Refer to Record template 1), e.g., pesticide used, method and location of application, Results of the inspection (finding in traps, location of infestation) and the corrective action taken.
- b) A copy of a valid contract between the food service establishment and the pest control company.
- c) A map of trap location or bait station.

6.5 Cleaning and Disinfection

6.5.1 Cleaning and Disinfection Methods

Disinfection is to eliminate or reduce micro-organisms count (particularly pathogens) to a safe level which will not lead to contamination or cross contamination from surfaces, rendering them sanitary for food handling purposes.

Cleaning is to remove gross material from surfaces, reducing foreign matter and reducing the load of organic matter on surfaces so that disinfection can be effective. Ineffective cleaning can mean that excess organic matter may degrade disinfectants/sanitizers used, which will limit their effectiveness and can lead to micro-organism (including pathogens) remaining on surfaces.

Box 1- Cleaning steps generally include:

- 1. Removal of gross material through one or more stages of sweeping, wiping, brushing, blowing with air, vacuuming or rinsing. If there is very little gross material on surfaces, this step may sometimes be skipped.
 - a) For fatty/oily material, hot water is often used as the heat melts/loosens the material, making removal quicker.
 - b) For protein residues, cold water is often used as hot water can set/cook the proteins, making them stick harder to surface.
 - c) For area's handling dry powdered/granular materials (e.g. flour, milk powder, sugar, grains, etc.) dry cleaning methods such as wiping, sweeping, brushing, vacuuming or blowing may be used as water would bind with the dry materials. This would make them sticky, harder to remove and would cause and remaining residue to set hard on surfaces.
- 2. Washing with detergents acts by binding fat residues to the detergent, holding them in solution with the water. Some detergents may have enzymes added, which can help to break down proteins, making them easier to remove. Mechanical action (e.g. scrubbing or pressure spraying) at this step is important as it increases the interaction between the detergent, the residue, and it physically removes residue from the surfaces. Minimal mechanical action can limit the effectiveness of the washing step, leaving excess residue on surfaces.
- 3. Rinsing removes the mixture of water/detergent/residue that remains after washing, reducing the overall level of organic matter. For difficult to clean residues or surfaces, or surfaces that require disinfection, the washing and rinsing steps may be repeated a number of times. This helps ensure that for all practical purposes all traces of residue have been effectively removed. For areas/ surfaces that do not need to be dried or disinfected, cleaning may finish at this stage.
- 4. Drying may be an optional stage, often this may be used when residual water may cause a further food or safety hazard, or where residual water may be unsightly.
- 5. Disinfection is the use of chemical agents or heat (e.g. steam, or very hot water) to kill microorganisms (particularly pathogens), rendering surfaces safe for handling food. Some chemical disinfectants/sanitizers will leave a residue that needs to be rinsed (or wet wiped) off surfaces after use so that they do not taint product, other disinfectants/sanitizers are designed to evaporate so that they do not leave a residue (no rinse sanitizers).

Each food business is to develop it is own cleaning procedures. These steps are a suggestion. Per example due to the type of chemicals used the 'contact time' need to be considered.

6.5.2 Cleaning and Disinfection Program

- 6. A cleaning and disinfection program for all areas of the establishment s (e.g. receiving, processing, storage) and all equipment shall be available and implemented.
- 7. The program shall include:
 - What is to be cleaned.
 - The cleaning agents to be used and mixing instructions.
 - The person or people responsible, staff are assigned only for cleaning tasks.
 - The frequency of the activity.
 - Cleaning methods e.g. removal of food, dismantling of equipment.
- 8. The program shall be relative to the type of operation and shall take into consideration:
 - Types of products, e.g. bakeries may dry clean.
 - Risk of the product (raw, ready to eat).
 - Cleaning between different products to minimize risk of cross contamination, e.g. allergens.
 - Cleaning as you go (during production).
- 9. The program shall be conducted to minimize the risk for cross contamination of food, food contact surfaces or packaging materials. This can include:
 - Removing Food products, ingredients and packaging from the area during cleaning.
 - Avoiding creating aerosols and splashes during cleaning.
- 10. Appropriate methods shall be in place to check effectiveness of cleaning & disinfection. (Refer to box 2)
- 11. Document checks on the effectiveness of the cleaning and disinfection program shall be completed prior to production restarting, and corrective actions shall be recorded.

Box 2- PIC

- can choose one or a combination of the methods below to check the effectiveness of the cleaning and disinfection procedures.
- Visual inspection e.g. post cleaning inspection shall be completed by persons other than those doing the cleaning.
- Swabs for microbial testing
- Final rinse testing to control chemical residues.
- Adenosine triphosphate (ATP) measurement (immediate results)
- Bioluminescence, it does not give you the levels of bacteria on surfaces, just food residues (immediate results).

6.5.3 Cleaning and Disinfection Chemicals

- 1. Chemicals shall be approved for their intendent use. Food grade chemicals shall be used.
- Food Grade Certificate issued from a trusted source (e.g. National Sanitation Foundation NSF, disinfection products complying with EN 1276 or EN 13697 ...), copies of the MSDS and, if available, a copy of the contract with the supplier shall be provided.
- 3. Chemicals shall be handled and used carefully in accordance with the relevant instructions.
- 4. Chemicals shall be mixed and used at the correct concentrations.
- 5. Chemicals shall be separately stored away from food, food contact surfaces, packaging materials, sunlight, high heat, and on shelves away from floor.
- 6. All chemical containers shall be clearly labelled i.e. name of chemical, expiry date.

6.5.4 Equipment Used for Cleaning and Disinfection

- 1. Cleaning and disinfection equipment shall be designed for its intended use.
- 2. Cleaning and disinfection equipment shall be properly maintained, e.g. brushes in good condition with no loose bristles.
- 3. Cleaning and disinfection equipment shall be dedicated for each area e.g.:
 - Staff facilities (toilets)
 - Food contact surfaces
 - Food processing areas
 - Drains
 - Outside area
 - Dining area etc....

It is recommended to use color-coded equipment.

- 4. Cleaning and disinfection equipment shall be stored separately away from processing and food items storage areas and preferably provide hanger for mops in small cabinets or in a separate storage room.
- 5. For dishwasher, the requirement for water temperature:
 - for washing is between 50°C and 60°C and according to the manufacturer's instructions.
 - for rinsing is above 82°C.
- 6. The water temperature of the dishwasher shall be monitored by a calibrated thermometer.

6.5.5 Cleaning and Disinfection of utensils and processing environment

- 1. All utensils shall be cleaned and disinfected as detailed in the program.
- 2. All food contact surfaces shall be fully cleaned and disinfected between incompatible types of products (e.g. raw/cooked, allergen/non-allergen, etc.) to avoid cross over of products.
- 3. The environment around and above where exposed product is handled shall be fully cleaned and disinfected between incompatible types of products (e.g. raw/cooked, allergen/non-allergen, etc.).
- 4. Processing environment shall be fully cleaned and disinfected (where relevant) at least daily.

6.5.6 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

- a) Cleaning and disinfection program
- b) Cleaning and disinfection records (Refer to Record template 2)
- c) Food grade certificate and copies of MSDS for the chemicals.
- d) Records on the effectiveness of the cleaning and disinfection program and corrective actions.
- e) Dishwashing Temperature Monitoring record.

6.6 Equipment and Utensils

6.6.1 Design and material of equipment

- 1. Food contact equipment and utensils shall be:
 - a) Smooth, easily cleanable, and durable under conditions of normal use.
 - b) Suitable design and fit for purpose.
 - c) Constructed with food grade materials.
 - d) Corrosion resistant and nonabsorbent.

6.6.2 Equipment and utensils use

- 1. All equipment shall be used for its intended purpose and within its capability.
- 2. Different equipment is used for specific purposes e.g. color coding chopping boards and knives.
- 3. Staff shall be trained to use equipment they operate.
- 4. The use of critical equipment shall be documented and available to staff.

6.6.3 **Storage**

- 1. All equipment shall be cleaned, sanitized and allowed to dry before being placed into storage.
- 2. All equipment shall be stored away from dust, pests and other contaminants.
- 3. The entry of equipment into production shall be managed effectively. This can include cleaning, sanitizing and inspection before use.

6.6.4 Maintenance

- 1. The preventive maintenance program should be available and implemented.
- 2. The maintenance program shall ensure to:
 - a) isolation of food during maintenance to prevent contamination.
 - b) a process for returning equipment to use after maintenance to prevent contamination of food, this must include cleaning and sanitizing and inspection before use.
- 3. All grease and lubricant used on food contact equipment shall be food grade and applied appropriately (no over greasing).
- Maintenance of equipment shall be done by appropriately trained personnel.

6.6.5 Calibration

- 1. All equipment used for monitoring or achieving food safety and regulatory requirements shall be calibrated, e.g. Thermometers used to check cooking temperatures, pH meters ...
- 2. A calibration program should identify all key equipment and include equipment ID, calibration frequency, method of calibration, responsibility for calibration.
- 3. Records of calibration shall be maintained and include equipment ID, date of calibration, calibration result, signed by person completing the calibration.
- 4. Internal calibration of equipment shall be done by appropriately trained personnel.
- 5. If an external contractor is used for calibration service, they must be able to show what recognized standard they have calibrated against.
- 6. The frequency of calibration can be based on the equipment supplier guidance, regulatory requirements or based on the risk of the equipment going out of calibration and impact on food safety. Equipment that is critical to food safety shall be calibrated more frequently. Portable equipment is more likely to go out of calibration than fixed equipment (e.g. display thermometer in chiller and fixed scales) and therefore, portable equipment should be calibrated more frequently.

Box 3 – The PIC can use one of these methods for internal verification of a thermometer and document it.

• Ice Point Verification method :

Thermometer verification can be carried out using the following ice point method.

- 1. Half fill a container with crushed ice.
- 2. Add cold water to the level of the ice to form an ice slurry.
- 3. Place the temperature probe into the ice slurry and stir slowly.
- 4. Allow the temperature reading to settle and check temperature.
- 5. An acceptable variance is +/- 1°C from 0.0°C.
- 6. If the reading is outside this variance than the thermometer should be set for repair or replaced.
- Verification against a Master Thermometer

Thermometer verification can be carried out by comparing a temperature reading against an independently calibrated Master Thermometer.

- 1. Place both the master and test thermometer into a container of liquid (at a temperature similar to the processing temperature).
- 2. Allow both thermometers to settle.
- 3. Compare the temperature of the test against the master. An acceptable variance is +/- 1°C.
- 4. If the reading is outside this variance than the thermometer should be set for repair or replaced.

6.6.6 Documents and records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

- a) Preventive Maintenance Program
- b) Calibration Program
- c) Maintenance records (Refer to Record template 3)
- d) Calibration records
- e) Food Grade Certificates for Lubricants and Grease
- f) Equipment instruction manual

6.7 **Personnel**

6.7.1 Personal Hygiene Policies

- 1. An effective written personal hygiene policy that identifies hygienic behavior and habits that should be followed to prevent contamination of food shall be implemented. Policy includes:
 - g) Good hand washing practice.
 - h) Management of sickness and illness.
 - i) Jewelry policy.
 - j) Wound management policy.
 - Personal protective equipment (PPE) per example: gloves, hair restraints, apron, sleeves, shoe covers.
 - l) Visitors management (including contractors, pest control company representatives, maintenance staff, etc.) entering the establishments.

2. The personal hygiene policy shall be communicated to all staff, it can be posted in languages understood by staff / visitors on a notice(s) board etc...

6.7.2 Personal Hygiene Practices

The following hygiene practices shall be maintained to minimize the risk of product contamination from staff:

- 1. Particular care must be taken when handling ready to eat products which do not receive any additional cooking prior to consumption.
- 2. Smoking is only allowed in dedicated uncovered areas.
- 3. Controls around staff movements, PPE and hand washing, shall be implemented.
- 4. Personal food storage shall be separated from products/ingredients handled onsite. Food and drink shall only be consumed in designated areas. Staff shall be aware of allergen controls in relation to personal foods.
- 5. Spitting is prohibited, sneezing or coughing are managed to prevent contamination.

6.7.3 Staff movements

- 1. To minimize the risk of cross contamination staff movements must be kept to a minimum.
- Controls shall be in place for staff that are required to move from a lower care area (raw food preparation area) to a high care area (cooked product and packing).
- 3. Controls include hand washing and apron change after handling raw products or controlled by scheduling (e.g. cooked products handled first and then raw).
- 4. Controls shall also include the movement of equipment, ingredients, wastes and products.

6.7.4 Personal Protection Equipment (PPE)

- 1. Sufficient supply of clean PPE shall be readily available to staff.
- 2. Clean PPE should be stored in clean and dry location to maintain its hygienic condition (ideally in a closed cupboard), unclean PPE should be stored separately from clean ones.
- 3. PPE shall be appropriate to the operation in which the staff is engaged.
- 4. PPE shall be clean and well maintained e.g. from loose threads of damaged PPE, unclean PPE should be changed.
- 5. Staffs in all processing areas (from receiving to display) shall wear appropriate hair restraints such as hairnets.
- 6. The cleaning/laundry of PPE procedure shall be in place.
- 7. PPE items which cannot be laundered, e.g. mesh gloves and aprons, must have a sanitation procedure in place.
- 8. Personal belongings, including street clothing, should be stored separately from food processing, distribution, storage and handling areas.
- 9. Personal belongings and clothes shall not be stored with PPE.
- 10. The requirements for PPE shall be included in staff training.

6.7.5 Handwashing

- 1. Staff shall be trained with the appropriate hand washing techniques.
- 2. All people entering food processing, storage, distribution and handling areas shall wash their hands:
 - a) before starting work.
 - b) after handling chemicals.
 - c) after handling incompatible food products (for example, raw versus cooked or ready-to eat) or after handling contaminated materials.
 - d) after breaks.
 - e) after eating.
 - f) after coughing, sneezing or blowing their nose.
 - g) after using toilet facilities.

6.7.6 Food handlers' health

- 1. Each food handler shall have a valid food handler Health Certificate issued by Medical Commission.
- 2. Food handler is approved by MoPH as soon as the process is initiated.
- 3. A documented procedure to manage food handler sickness/illness shall be available and implemented.
- 4. All food handlers working for the business shall be aware of their health and hygiene obligations:
 - a) To report any food borne illness or condition they are suffering from to their supervisor,
 - b) Not to engage in any handling of food where there is a reasonable likelihood of food contamination as a result of the disease,
 - c) Notify their supervisor if they know or suspect that they may have contaminated food whilst handling.
- 5. A person known to be suffering from, has reason to believe they may be suffering from, or who is a carrier of, a food-borne disease; shall not engage in the handling of food where there is a reasonable likelihood of food contamination.
- 6. A person excluded from handling food may be permitted to resume handling food, only after receiving clearance from a medical practitioner.
- 7. Staffs having open cuts or wounds should not handle food or food contact surfaces unless the injury is completely protected by a secure waterproof covering (for example, rubber gloves).
- 8. If wound dressings (e.g. Band-Aid) are used there shall be processes in place to ensure these are controlled.
- 9. A first aid kit should always be available and filled with the necessary items e.g. bandages, antiseptic...)

6.7.7 Food handlers' skills, knowledge and training

- 1. All staff undertaking or supervising food handling operations shall have skills and knowledge in food safety and food hygiene matters for them to be able to identify potential risks and take the necessary actions.
- 2. A written training program for staffs shall be implemented.
- 3. Training program shall be updated at appropriate intervals and when needed per example when new staff are joining, new equipment, new process...
- 4. Appropriate training in personal hygiene and hygienic handling of food shall be provided to all food handlers at the beginning of their employment.
- 5. Refresher training shall be conducted regularly.
- 6. Training for personnel should cover parameters for control measures, procedures for monitoring, identifying deviations, taking appropriate corrective actions and recording.

- 7. Training should be conducted for the following programs:
 - a) Control of Contamination,
 - b) Safe food handling
 - c) Temperature Control of Foods,
 - d) Personal Hygiene,
 - e) Maintenance
 - f) Calibration
 - g) Cleaning and disinfection
 - h) Use of Specific equipment
 - i) Pest Control
 - j) Relevant process specific topics
 - k) Recalls
 - I) Allergen
- 8. Training should be appropriate to the complexity of the process and the tasks assigned.
- 9. Personnel shall be trained to understand food safety requirements.

6.7.8 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

- a) Personal hygiene policies and procedures.
- b) Documented procedure to manage food handler sickness/illness.
- c) Training program for staffs.
- d) Staff training records (Refer to Record template 4)
- e) Staff sickness records (Refer to Record template 5)
- f) Staffs health certificates issued by medical commission.
- g) Laundry records and procedure.

6.8 Receiving

6.8.1 Receiving principles

- 1. All goods shall be received from an approved supplier.
- 2. There shall be a process in place for approval and monitoring of suppliers. (Refer to box 4)

Box 4 - Approval process of a supplier can include one or a combination of the following:

- Set purchase specifications (include supplier implementation of the food safety requirements of this Code).
- Audit of the supplier completed by the operation being supplied at least yearly
- Third party audit certification of the supplier.
- Based on historical relationship with the supplier (has been a supplier for a few years and there have been no problems).
- 3. There shall be a process in place for approval and monitoring of suppliers.
- 4. Suppliers shall follow the requirements set in this Code of Practice.
- 5. All foods and ingredients (e.g. additives) shall be approved for used in Qatar.
- 6. On receipt of goods, an inspection shall be conducted to ensure that the material meets the required specification/expectation of the operation:
 - a) Packaging is undamaged and goods in acceptable condition (e.g. not partially thawed if frozen)
 - b) All good are correctly labelled (e.g. identification, batch number, expiry or best before dates)
 - c) Goods delivered in appropriate food containers
 - d) Goods are at the correct temperature. Temperature checks completed using a calibrated thermometer.

- e) No pest or foreign material contamination
- f) Shellfish are properly tagged/labelled (Tags must be retained for 90 days)
- g) Eggs are clean and not cracked. Liquid, frozen or powdered eggs are pasteurized.
- h) All milk products are pasteurized.
- i) Canned products are not swollen, rusty or leaking.
- Packaging material, cleaning chemicals, food contact lubricants (and similar) and food contact gases shall be food grade.
- 8. There shall be a process in place to manage received goods that do not meet the required specification. (Refer Non-Conformance section).
- 9. The delivery truck/ vehicle shall be inspected to ensure it is clean and doesn't carry, (or is not currently carrying) chemicals or other contaminants in the same area as food. Drivers of the trucks must be clean and tidy and comply with the required personal hygiene practices required for handling food (Refer to Personal section 6.6).
- 10. During the receipt of goods all possible care shall be taken to minimize the risk of cross contamination. This includes:
 - a) Keeping cooked food, raw food, allergens and non-food items separate.
 - b) Keeping all packaging intake.
 - c) Keeping the area where the goods are received clean and tidy.

6.8.2 Temperature control

- 1. Temperatures shall be checked on receival to ensure they meet the following requirements:
 - e) Ambient products (especially UHT Milk) less than 25°C
 - f) Chilled product less than 4°C
 - g) Frozen products colder than -18°C (or product should be hard frozen)
 - h) Cooked food above 64°C
- 2. When chilled or frozen goods are received, goods shall be transferred into temperature-controlled storage in a short time that they do not increase in temperature above 5°C or start to thaw.
- 3. When hot cooked food is received per example in cambros, it shall be transferred into temperature-controlled storage in a short time that they do not decrease in temperature below 64 °C
- 4. If product remains in the goods receival area for extended periods while checks are made or while large loads are transferred into storage, then the good receival area should be temperature controlled to maintain suitable temperatures of the products.

6.8.3 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

- a) Receiving written procedures
- b) List of suppliers (Refer to Record template 6)
- c) Receiving records including non-conforming goods records. (Refer to Record template 7)
- d) Certificate of analysis of food products and additives (where applicable)
- e) Records of food grade status of packaging materials, cleaning chemicals, food contact lubricants and food contact gases (these records or other evidence may be checked under the storage, cleaning, maintenance, packaging or other relevant modules)

6.9 Storage

6.9.1 Storage principles

- 1. All storage areas shall be constructed of materials which are durable and easily cleaned.
- 2. All materials shall be stored off the floor on pallets or shelves at a sufficient distance from the wall and the floor to avoid potential harborage of pests and facilitate inspection.
- 3. Pallets and shelves shall be rust-resistant, non-absorbent and easily cleaned e.g. plastic and stainless steel
- 4. There shall be separation/segregation of:
 - a) food and non-food materials such as equipment, utensils, linens, single-service and single-use articles, packaging, and chemical agents.
 - b) cooked and raw products.
 - c) products with different allergens.
- 5. First-in, first-out procedures shall be routinely followed for product movement.
- 6. All opened packages of food shall be protected from contamination and used within their expiry date. Any instructions included on the label by the manufacturer shall be followed.
- 7. Products are either stored in the original packaging or transferred to packaging suitable for food contact use and labelled appropriately with any required information from the original label (e.g. expiry date) and 'date opened'.
- 8. All food shall be stored at adequate temperatures considering the type of food and its risks.

6.9.2 Dry storage

- 1. Dry stores are to be maintained in a clean and tidy manner. Dust and spillages are cleaned up promptly.
- 2. High risk products should be stored separate. e.g All single packets/bags of allergenic materials such as nuts or sesame seeds should be stored in sealed packets/containers below other foods to prevent potential cross contamination.
- 3. There is no condensation or signs or water leakage (e.g. water stains on the floor or walls) in the dry store.
- 4. Step must be taken to ensure that excessive humidity (which may degrade product) is controlled (e.g. ventilation to provide airflow or if necessary, dehumidifiers).
- 5. The ambient temperature within dry storage should be around 25°C.
- 6. Effective pest control (refer to pest control section)

6.9.3 Refrigerated (Chilled) storage:

Risk in chilled storage comes from food stored at elevated temperature that will allow the growth of pathogens. This may be ready to eat foods that already have low, but safe levels of pathogens that are allowed to multiply to unsafe levels. This may also be foods that are for further cooking where pathogen may grow to excessive levels which will then not be fully controlled by the cooking. Refrigerated storage applies to small fridges through to large walk in/drive in chillers and refrigerated containers.

All potentially hazardous foods are stored at a temperature of 4° C or less. This includes foods that have been prepared and cooled to be served cold.

- 1. All refrigerated storage areas must be operated within the acceptable capacity of the store. There must be sufficient space to allow adequate air circulation.
- 2. Refrigerated ready-to-eat (RTE) potentially hazardous foods, prepared and held for more than 24 hours, should be marked with the date of preparation or the "consume by" date.
- 3. In general, refrigerated ready-to-eat potentially hazardous foods are discarded if not consumed within a maximum of 3 days from the date of preparation unless there is a different commercial shelf life or there are signs of spoilage (odour, colour, product deterioration).
- 4. Calibrated thermometers shall be used to verify the temperatures in all refrigerated storage areas.

- 5. Temperatures shall be checked and recorded at least 2 times daily at acceptable intervals during operation and logs are easily accessible for review by Inspectors.
- 6. Routine maintenance should be conducted on all refrigeration units to ensure their reliability.
- 5. Condensation shall not drip onto ingredients or product; it can be piped directly into a drain.

6.9.4 Frozen storage:

Frozen storage applies to small freezers through to large walk in/drive in freezers and frozen containers.

- 1. All frozen foods are stored at a temperature of -18°C or less.
- 2. All freezer storage areas must be operated within the acceptable capacity of the store. There must be sufficient space to allow adequate air circulation.
- 3. The effectiveness of frozen storage should be verified by checking a calibrated temperature display on the equipment.
- 4. Temperatures are recorded at least daily and logs are easily accessible for review by inspectors.
- 5. Routine maintenance should be conducted on all frozen refrigeration units to ensure their reliability. Freezers are kept in good repair, defrosted regularly, and kept clean.

6.9.5 Documents and Records Checked:

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

a) Cold Storage Temperature records (Refer to Record template 8.1 and 8.2)

6.10 **Transportation**

6.10.1 Transportation Vehicles

- 1) All vehicles/ food carriers / transport boxes (cambros, ...) to transport food shall be fit for purpose. This includes:
 - a) cleaned and sanitized.
 - b) able to maintain the correct transportation temperature.
 - c) not carrying any non-food materials that could contaminate the food.

6.10.2 Loading and unloading

- 1. Goods shall be loaded, arranged and unloaded in manner that prevents damage and contamination of the food and/or food packaging material.
- 2. Products in need of refrigeration or freezing shall be loaded quickly to ensure that temperatures do not elevate during loading (transport refrigeration units are generally only powerful enough to maintain temperatures, not powerful enough to reduce elevated temperatures).
- 3. Loading of product (e.g. prepared food) into transport vehicles shall be completed under controlled conditions.
- 4. All food for transport shall be covered or packed, and appropriate separation of products, e.g. cooked and raw.

6.10.3 Temperature control

- The correct temperatures for the type of food carried shall be maintained either using temperaturecontrolled vehicles or insulated boxes.
- 2. Product/Ingredients and finished product which require temperature controls shall be transported in a manner that prevents temperature abuse, which could result in deterioration, affecting product wholesomeness and safety:
 - a) Ingredients/products requiring refrigeration are transported at a temperature that assures food preservation and the temperature, (e.g. °4C or less but not frozen).
 - b) Frozen ingredients/products are transported at temperatures that do not permit thawing.
 - c) Hot cooked food is transported at temperatures that do not drop into the danger zone (less than 64°C)
- 3. Temperatures should be appropriately monitored with proper temperature recording devices.
- 4. Temperature shall be checked and recorded on loading and unloading to ensure correct temperatures are maintained during transportation.
- 5. Temperature controlled vehicles and temperature recording devices shall be calibrated.

6.10.4 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

a) Transported food & Transportation vehicles records for temperature and hygiene (Refer to Record template 9)

7. Part B: Operation control

Each food service establishment shall develop a food safety control program according to its own process flow and identified risks.

Therefore, not all below section described would apply to all food services.

When a food business follows a process different from the ones described below, he shall provide the proof of its effectiveness.

7.1 **Preparation**

7.1.1 Preparation

Preparation refers to controls around handling of raw ingredients, product requiring further cooking and ready to eat cooked and/or sanitized.

- 1. All food shall be handled in a manner to prevent contamination from packaging, other ingredients, staff and equipment. This includes:
 - a) Correct opening procedures.
 - b) Good personal hygiene practices.
 - c) Use of clean and suitable equipment, utensils and containers
- 2. Packed food shall be opened carefully to prevent accidental contamination from the packaging. Bags should be cut rather than torn, staples or tape carefully removed and disposed of.
- 3. Food shall be checked before and during preparation to ensure there is no evidence of contamination. Staff preparing materials should know what to check for and what to do if they find contamination.
- 4. After use, all partially used food containers shall be covered, closed or sealed to prevent contamination during storage. All material identification details shall always remain on the materials to maintain traceability.

- 5. If materials are transferred to another container the original ingredient details (ID, best before/expiry, batch number and opening date) shall be attached to the new container.
- 6. Only clean and suitable food containers shall be used to store materials.
- 7. All surfaces, containers and equipment shall be cleaned between incompatible materials (e.g. between allergenic and non-allergenic ingredients or between raw and cooked ingredients).
- 8. Chilled materials shall be kept out of refrigeration for a minimum period to prevent temperature abuse (unacceptable pathogen growth). This can be achieved by using small quantities at a single time.
- 9. Any handling of materials after cooking/sanitizing shall be done in a hygienic way to prevent post process contamination.

7.1.2 Ingredient Thawing

- 1. Equipment used for thawing shall be clean and well maintained to prevent contamination.
- 2. Thawing should only be conducted using a method that will not allow product temperatures to rise above 4°C for extended periods (which would risk pathogen growth) and will not allow the material to become contaminated or for the material to contaminate other products.
 - a) Thawing should ideally be conducted on smaller pieces; larger pieces can take excessive times to thaw.
 - b) Ideally product should be thawed under chilled conditions (e.g. in a refrigerator), so that its temperature will not exceed 5°C during the thawing process.
 - a) During thawing, fluids shall be separated from the thawed product, a strainer must be available in the thawing container and packages pierced to release the fluids.
 - c) Small quantities of products can be thawed in a microwave, but only if they are to be fully cooked or reheated immediately after thawing.
- 3. In most cases products should be fully thawed before cooking or reheating (unless otherwise stated by its manufacturer) as partially thawed food will take longer to cook or reheat, so may receive incomplete cooking or reheating.
- 4. Where it may be acceptable to cook or reheat partially thawed products (e.g. extended boiling of partially thawed meats, or reheating to boiling point of thin soups), extra care should be taken to ensure that full cooking or reheating has occurred and longer cooking or heating times may be required.

7.1.3 Weighing

- 1. Scales, utensils (scoops, spoons etc.) and containers shall be clean. Cross contamination between ingredients should be prevented.
- 2. Care should be taken when weighing ingredients to minimize dust and spillages. Any spillages shall be cleaned up as soon as practicable.
- 3. If weighed ingredient are stored for later, they should be sealed/covered and clearly labelled to identify them.
- 4. To maintain accuracy of labels and regulatory requirements (ingredient limits) the site shall be able to demonstrate consistency of weighing materials (e.g. recipes, calibrated scales).

7.1.4 **Mixing**

- 1. Equipment used for mixing shall be clean and well maintained to prevent contamination.
- 2. Mixing should be done in a way that will minimize the generation of dust and spillages. Any spillages shall be cleaned up as soon as practicable.
- 3. If mixed ingredients are stored for later, they should be sealed/covered and clearly labelled to identify them
- 4. To maintain accuracy of labels and regulatory requirements (ingredient limits) the site shall be able to demonstrate consistency of mixing materials (e.g. recipes).

7.1.5 Food Further Processing (Peeling, Slicing, Cutting and Dicing)

- 1. Equipment used for further processing shall be clean and well maintained to prevent contamination.
- 2. All blades and knives should be inspected at the start and end of the process to check for damage which could mean metal contamination of the ingredients.
- 3. Automated slicing and cutting equipment blades (Dicer etc.) shall be checked prior and after use.

- 4. All waste generated during the process shall be disposed of correctly to prevent contamination of the food. Any spillages shall be cleaned up as soon practicable.
- 5. If ingredients are stored for later, they should be sealed/covered and clearly labelled to identify them.
- 6. Any water used for processing shall be potable.

7.1.6 Sanitization Wash

Sanitization wash: Products (often heat sensitive products) which only have pathogens on their surfaces may have the pathogens eliminated using chemical sanitizers such as chlorine.

- All products shall be cleaned before they are sanitized as any residual soiling will degrade the sanitizer and limit its effectiveness.
- 2. Once cleaned, the products shall be covered or immersed in the sanitizing solution as per the manufacturer's instructions.
- 3. If products float through a tank during the sanitizing process, demonstrate that individual items remain in contact with the sanitizer for the required contact time.
- 4. Review and maintain a copy of the manufacturer's instructions on what the suitable concentration and contact time is for sanitizing their product as well as whether it is to be rinsed off with potable water or whether it can remain.
- 5. Staff shall comply with manufacturer's instructions at all time when sanitizing product.
- 6. Any products that are to be consumed ready-to-eat, must be handled hygienically between rinsing off the sanitizer and packing to avoid contamination.
- 7. Sanitizer concentration shall be monitored and recorded to ensure that it always remains at or above required levels during sanitizing.
- 8. Signage showing sanitation wash instructions are displayed in appropriate languages and locations.

7.1.7 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

- a) Thawing Temperature records (Refer to Record template 10)
- b) Food Sanitizing Records

7.2 Cooking

7.2.1 Cooking Method

The purpose of a cooking step is to kill all potentially harmful pathogenic microorganisms in the food to make it safe for consumption.

- 1. Effective cooking is achieved with a combination of temperature and time.
- 2. Temperatures mentioned are the core temperature (center or coldest spot in food) when the core has reached the required temperature and time that means all parts of the food have been cooked.
- 1. Cooking covers frying, boiling, steaming, baking, roasting, microwave, poaching, grilling and any other process which using heat as a pathogen kill step.
- 2. Common time and temperatures for cooking poultry, chicken liver and minced meat are:

Core Temperature (°C)	Hold Time (Minutes)	
65	15	
70	3	
75	30 sec	
MPI Template Food Control plan, 2015		

3. During cooking the vessels/chambers must not be used beyond their capacity as this will impact on the ability to achieve the correct time and temperature and could result in poor heat circulation and possible undercooked pieces of food.

4. The quality of cooking/frying oil should be monitored e.g. Checking Free Fatty Acid, and oil discarded when necessary,

7.2.2 Taking Cooking Temperatures

- 1. When checking the cooking temperature this must be done in the coldest spot of the food being cooked. The coldest spot is in the center of thickest or biggest piece of food.
- 2. When cooking is done in a chamber, e.g. oven, smokehouse etc. The temperature must be taken for the product in the coldest spot of the chamber. To determine this spot the temperature checks are done on products in different locations of the chamber and the lowest temperature indicates the coldest spot.
- 3. When cooking a liquid food e.g. soup, mix liquid and then take the temperature at the core of the container.
- 4. When taking the temperature, the probe shall not touch the bone, pan/bowl etc....
- 5. A clean and sanitized temperature probe must be used.
- 6. A record of cooking temperatures/times which are sufficient to demonstrate that all products have been cooked shall be maintained. This will normally be a temperature check for each batch or at regular intervals during a continuous process.

7.2.3 Controls after Cooking

- 1. There must be processes in place to handle food after it has been cooked to prevent post cooking contamination or permit growth of pathogens.
- 2. Cooked food should be kept covered and separated from raw products.
- 3. Cooked food must be either:
 - a) Consumed immediately
 - b) Held hot (Refer Hot Hold section)
 - c) Cooled for chilled or frozen storage (Refer Cooling, Freezing and Storage section).

7.2.4 Documents and Records:

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

a) Cooking temperature records (Refer to Record template 11)

7.3 Cooling

7.3.1 Cooling Methods

The purpose of controlled cooling of food is to minimize the time the food spends in the danger zone ($5^{\circ}C - 64^{\circ}C$). Some bacteria will survive a proper cooking process, but at a low enough level or in a condition (bacterial spores) that would not cause food poisoning. In the danger zone there is a significantly increased risk of pathogenic bacterial growth (or reactivation of spores) which can result in unsafe food.

Cooling hot product directly in refrigerators will increase the internal temperature of the refrigerator as well as the food products inside it to unsafe levels.

- 1. Effective cooling method shall be followed.
- 2. Cool food to 5°C or less within a maximum of 2 hours. The most efficient way to achieve this is by using a blast chilling unit.
- 3. Temperatures mentioned are the core temperature of food (center or hottest spot). By ensuring the core has reached the required temperature in the required time that means all parts of the food have been cooled appropriately.

- 4. Ice bath chilling, ice wand cooling (chilled rods inserted directly into containers of liquid product) and then refrigeration can be used.
- 5. During cooling the chambers shall not be used beyond their capacity (overfilled) as this will impact on the ability to achieve correct cooling and food temperature might reach the danger zone for periods that are longer than allowable.

7.3.1.1 Cooling Unit

- 1. Food depth should be as shallow as possible to allow rapid cooling (less than 10 cm in height), and/or food should be divided into smaller or thinner pieces or portions.
- 2. Containers used should be made of materials that facilitate heat transfer and containers loosely covered to facilitate heat transfer from the surface of the food.
- 3. Liquid or semi-liquid food should be stirred.
- 4. Food containers should be arranged to allow maximum heat transfer through container walls (containers not stacked on top of one another) with gaps around the top and sides of the containers to allow air flow and heat transfer.
- 5. Product for cooling should be stored above cold product.

7.3.1.2 Ice bath and ice wand methods

Ice baths shall be filled with ice and water from potable sources. An ice wand is inserted into the food and stirred.

- 1. A sufficient ratio of ice water to product shall be maintained to allow effective consistent cooling, the level of ice (or the water temperature) should be monitored during cooling and further ice added as required.
- 2. Care should be taken to avoid cooling water overflowing into open containers of cooling product.
- 3. The ice wand shall be clean and sanitized before use.
- 4. Transfer large quantities of cooked food into shallow containers or individual portioning containers before starting cooling.
- 5. After the ice bath or ice wand at ambient temperature (25°C) for 2 hours, transfer product to a final cooling at 4°C in the refrigerator.

7.3.2 Taking Cooling Temperatures

- 1. When checking the cooling temperature this shall be done in the warmest spot of the food being cooled. The warmest spot will be in the center of the thickest or biggest piece of food.
- 2. When cooling is done in a chamber (e.g. refrigerator & blast chiller), the temperature shall be taken for the product in the warmest spot of the chamber. To determine where the warmest spot in the chamber is, temperature checks are done on products in different locations of the chamber and the warmest temperature indicates the warmest spot (where the cooling temperature should be checked).
- 3. The largest piece of food should always be placed in the warmest spot of the cooling chamber.
- 4. A cleaned and sanitized temperature probe shall be used to check temperatures to ensure that cooling food is not recontaminated by the probe.
- 5. All thermometers used shall be calibrated.

7.3.3 Controls after Cooling

- 1. There shall be processes in place to handle food after it has been cooled to prevent post cooking contamination or permit growth of pathogens (from spores).
 - a) Cooled food should be kept covered and separate from raw products.
 - b) Cooled food should be moved to chilled or frozen storage (refer Freezing and Storage section) as soon as practical until reheated or consumed; unless it is to be consumed in the next 4 hours (refer Food Display section).

7.3.4 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

a) Cooling temperature records (Refer to Record template 12) The record should be maintained of cooling temperature and times which are sufficient to demonstrate that all products have been cooled. It shall include a temperature check for each batch or at regular intervals during a continuous process.

7.4 Baking (Breads/Cakes/Pastries)

7.4.1 Additives

- 1. Only approved additives shall be used and controls should be in place to ensure that they are used within allowable limits. For approved additives list refer to QS CACA 192 'General Standard for food additives' and other relevant GSOs e.g. GSO 19 Permitted food additives in edible oils and fats etc.
- 2. Any additives required by law shall be used, e.g. required fortification by Folic Acid.
- 3. All additives shall be used within their expiry date.

For Dough/Batter Preparation (Refer to Preparation Guidelines)

7.4.2 Proving (Leavening)

Proving is the process step where yeast in the dough is left to rest in a warm moist environment. This environment encourages the multiplication of yeast cells and the production of CO_2 to raise the dough. This may be done in two parts; where initially the cells multiply, then the dough is kneaded again (knocked back) to release the larger CO2 bubble and redistribute the yeast cells before the second proofing finishes the rising of the dough. Many baked items are not proved (unleavened).

- 1. Proving should follow the below to prevent dough contamination:
 - a) The yeast shall be fresh, and not contaminated.
 - b) The water supply shall be potable.
 - c) The Prover shall be clean and well maintained.

7.4.3 Filling/Icing/Topping

- Preparation
- 1. Any ready to eat fillings, icings or toppings made from high risk raw products such as egg or meat shall be suitably cooked.
- 2. Any cooked fillings, icings or toppings must be suitably cooled.
- 3. Any perishable ready to eat products, e.g. fresh cream shall be handled carefully to prevent contamination and used within 24 hours.

- Application
- 1. Filling equipment, particularly the parts of equipment that may contact dough/baked product should be inspected prior to use and after cleaning, particularly between incompatible products e.g. between allergens, cooked and raw etc.

7.4.4 Baking

Baking of breads, cakes and pastries are primarily for functional reasons. The destruction of pathogens and preservation by lowering of the products water activity are secondary considerations. If the baking step is insufficient to destroy pathogens or preserve the product, it would not meet functional requirements so would be in an unsaleable condition. For this reason, the baking step largely does not need to be controlled for any food safety reasons.

- 1. Ovens should be free of foreign matter that could cause a physical contamination.
- 2. Any fresh or frozen uncooked or partially cooked dough sold shall be clearly labelled as requiring a full cook/bake before consumption.

7.4.5 **Documents and Records:**

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

a) Records of additive additions

7.5 **Reheating**

7.5.1 Reheat method

The process of reheating shall increase the temperature as quickly as possible through the danger zone (5 – 64°C) to minimize the potential for microbiological growth.

- 1. Reheating shall be conducted using suitable equipment that is designed to heat product rapidly, such as a microwave, stove, oven, boiler, steamer or similar.
- 2. Reheating shall not be conducted using equipment that is designed only to hold product at a hot temperature, such as hot display cabinets, Bain Marie's, hot lamps, soup kettles etc.
- 3. Reheating should not be conducted using equipment that is designed to 'brown' or sear products such as grills etc.
- 4. Using inappropriate equipment to reheat may result in products taking too long to reheat or result in incomplete reheating (products that are hot on the outside, but not on the inside); this can result in increased growth of pathogens.
- 5. When reheating, the core of the food shall be heated to a minimum of 75°C.
- 6. Temperatures mentioned are the core temperature of food (center or coldest spot in food). By ensuring the core has reached the required temperature to achieve a full reheat, all parts of the food have been fully reheated.
- 7. Liquid products (e.g. soups etc.) should be stirred periodically during reheating to ensure proper distribution of the heat.
- 8. A record shall be maintained of reheating temperatures which are sufficient to demonstrate that all products have been reheated correctly. This will normally be a temperature check for each batch or a weekly check of suitable reheating practices and temperatures by the PIC for reheating of individual servings.
- 9. During reheating the vessels/chambers shall not be used beyond their capacity (overfilled) as this could result in poor heat circulation, which could impact on the ability to achieve the correct temperature or product spent too long in the danger zone, leading to pathogen growth.

7.5.2 Taking Reheating Temperatures

1. When checking the reheating temperature this shall be done in the coldest spot of the food being reheated. The coldest spot will be in the center of the thickest or biggest piece of food.

- 2. When reheating is done in a chamber, (e.g. oven), the temperature shall be taken for the product in the coolest spot of the chamber. To determine where the coolest spot in the chamber is, temperature checks are done on products in different locations of the chamber and the coolest temperature indicates the coolest spot (where the reheating temperature should be checked).
- 3. A cleaned and sanitized temperature probe shall be used to check temperatures to ensure that cooked food is not recontaminated by the probe. (Refer to Record template 13)
- 4. All thermometers used shall be calibrated.

7.5.3 Controls after Reheating

- 1. There shall be processes in place to handle food after it has been reheated to prevent post heating contamination or permit growth of pathogens (from spores).
- 2. Reheated food must be either: consumed immediately or held hot (Refer Hot Hold display in Food Display section)
- 3. Reheated food shall never be reheated more than once and shall never be reused. Any remaining reheated food must be discarded.

7.5.4 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

a) Reheating temperature records (Refer to Record template 13)

7.6 Food display

7.6.1 Food Display Method

A food display unit is an equipment for short term hold (hot or chilled) and the display of food is open to consumers for self-service or served by staff, e.g. buffets, salad bars, hot hold displays such as Bain Marie's. It is critical that food on display is maintained at the correct, safe temperature and is protected from contamination.

- 1. When displaying food, the core of the food should be maintained at the correct temperature for the permitted time. Incorrect display temperatures can result in unacceptable microbiological growth
- 6. Chilled less than 4°C
- 7. Hot greater than 64°C
- 2. Display units shall be fit for purpose. This includes:
 - a) Able to maintain the desired temperature consistently.
 - b) Not used beyond their capacity (Overfilled) as this will impact on the display unity ability to maintain good temperature circulation which could result to correct temperature and prevent product exposed to the danger zone.
 - c) Made of food grade materials.
 - d) Protect the food on display from contamination (e.g. sneeze guards)
- 3. Where food is allowed to be served raw or lightly cooked (such as raw oysters, steak tartar, carpaccio, products made from raw eggs etc....), the public should be notified of the increased health risk.
- 4. Display containers shall be emptied and cleaned before a new batch is added, never mix batches.
- 5. Utensils shall be also changed between batches.
- 6. All left over food shall be discarded.
- 7. Labelling and traceability shall be maintained through the display process.
- 8. Potentially hazardous foods (PHF) that are intended for immediate consumption may be:
 - a) Consumed within 4 hours, any product that remains after 4 hours must be discarded.
 - b) Food that is not used within 2 hours can still be chilled for further use.
 - c) Food that is not chilled within 2 hours (e.g. on display for more than 2 hours) can still be consumed for up to 4 hours.

7.6.2 Taking Display Temperatures

- 1. When checking the display temperature this must be done in the coldest (Chilled)/warmest (hot) spot of the food being displayed.
- 2. The coldest/warmest spot will be in the center of thickest or biggest piece of food.
- 3. A record shall be maintained for display/holding temperatures which are sufficient to demonstrate that all products have been displayed correctly.
- 4. A cleaned and sanitized thermometer probe shall be used to check temperatures.
- 5. All thermometers used shall be calibrated (Refer to calibration 6.5.5).

7.6.3 Chilled Displays

This includes counter refrigerators, chilled buffet/salad bars and displays using ice beds. The temperature of the foods in these displays must be maintain at less than 4°C to prevent unacceptable bacterial growth.

- 1. Temperature checks shall be completed and documented for chilled displays 30 minutes after loading, and then every 4 hours.
- 2. Ready-to-eat cold food is held in cold display at 4°C.
- 3. Ice used in ices beds shall be made of potable water and replaced regularly before it is fully melted.

7.6.4 Hot Hold Displays

This includes hot cabinets and Bain Marie units. The temperature of the foods in these displays must be maintain at greater than 64°C to prevent unacceptable bacterial growth.

- 1. Temperature checks shall be completed and documented for hot displays 30 minutes after loading and then every 2 hours.
- 2. If hot food has been held at a temperature below 64°C for more than 2 hours, it must be thrown away.
- 3. Water used in hot hold units shall be potable water.

7.6.5 Ambient Perishable Displays

This includes the display of cheese, salads, sandwiches that are displayed at ambient temperature.

- If service is longer than 4 hours, then controls shall be in place to demonstrate this is managed.
- 2. The time on display at ambient temperature e.g. of cheese, salads and sandwiches... shall be managed to ensure unused food is discarded after 4 hours.

7.6.6 Serving from Displays

- 1. When serving from display units, care shall be taken to minimize the risks of cross contamination, steps taken include:
 - a) Staff shall wear disposable gloves while serving food. These shall be changed after serving.
 - b) Controls shall be in place to manage the use of gloves to prevent cross contamination (same as when there is a need to wash hands), e.g. between handling money and food.
 - c) Utensils used for serving shall be fit for intended use e.g. tongs, scoopers, maintained clean and shall not be used for different foods without cleaning in between.
 - d) Particular care shall be taken to prevent contamination of food by other food containing allergens e.g. allergenic foods should be displayed in a way so that it cannot drop into other foods during service, ensure food with allergens are identified by a suitable label."
 - e) All containers and utensils used for service of food shall be food grade.

7.6.7 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

- a) Display Temperature records (Refer to Record template 14)
- b) Display period are recorded when needed.

7.7 Ice cubes making machine

7.7.1 Commercial Ice Making Machine

Commercial ice making is achieved using continuous ice making machines which freeze potable water into the required ice configuration (cubes or shaved).

- 1. The cleaning and maintenance of the ice machines is critical to prevent foreign material contamination (Refer Equipment Module) and the growth of microorganisms (Refer Cleaning Module).
- 2. The ice manufactured shall be collected in appropriate containers or storage vessels.
- 3. Ice scoopers must be stored after each use in a way that does not pose risk of contamination to the ice manufactured e.g. store in a way to avoid contact between scooper handle and ice.

7.7.2 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

- a) Training records of use of this equipment
- b) Operating instructions for this equipment
- c) Maintenance records of this equipment
- d) Cleaning records of this equipment

7.8 **Packing**

7.8.1 Packaging Source

- 1. All packaging should be sourced from reputable and approved suppliers. (Refer to Receiving section.)
- 2. Packaging shall be approved for its intended use.
- 3. Packaging materials used in direct contact with food shall be food-grade.
- 4. A certificate of compliance shall be provided from supplier and all supporting documentation e.g. migration test, shall be available to prove compliance to its intended use.

7.8.2 Packaging Storage

- 1. All packaging must be stored in a manner to prevent contamination.
- 2. Packaging must be stored away from food ingredients to prevent cross contamination.
- 3. All packaging must be clearly labelled, e.g. batch/lot number, supplier, identification, description.

7.8.3 Documents and records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

a) Certificate of compliance of food grade packaging materials.

7.9 End Product

7.9.1 Final product verification (where applicable)

- 1. A sampling program for the food products shall be developed.
- 2. The food sampling program shall include:
 - a. Person responsible for the development of the sampling program and responding when detections occur and a description of their responsibilities.
 - b. From where and when to collect samples.
 - c. The frequency of sampling and the number of samples taken.
 - d. Procedures for food product samples and situations where increased sampling is needed.
 - e. The results of sampling are recorded.
 - f. The corrective action taken in case of non-compliance are recorded.
- An external approved laboratory to conduct quality and safety testing of end product and any other food product.
- 4. The laboratory test results of sampling are recorded and maintained at the establishment for not less than two year and available for official review.

7.9.2 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

- b) The laboratory test results of food samples.
- c) Record of corrective actions taken.
- d) Sampling program.

7.9.3 Retention samples (where applicable)

A food retention sample is a daily representative sample of all high risk food e.g high protein items taken and retained by catering contractors for analysis following a complaint, any allegation or for a food poisoning investigation.

- 1. A food sample retention procedure should be developed (refer to box 4) by caterers supplying food to a mass e.g world cup event and/or to a high risk population e.g. hospitals, schools...
- 2. A food sample retention procedure should be communicated it to concerned staff.
- 3. Food handler assigned shall be properly trained on the procedure.
- 4. Retention samples shall be stored in dedicated freezer.
- 5. In case of a complaint of 2 or more consumers who ate the same food, product and show symptoms of food poisoning notify MoPH.

Box 4 - The PIC can develop the retention sample procedure based on the below.

- 6. Collect a food sample daily from the food products prepared and/or sold by the food service establishment.
- 7. Retention samples shall include high-risk food products, such as sandwiches, salads, appetizers, meat, chicken and fish meals and the quantity shall not be not less than 250g.
- 8. Collect one wrapped food item (unopened) and store in a clean food grade plastic bag and seal tightly.
- 9. Write the following details on the retention sample: type of food, date of preparation and name of the person who collected the sample.
- 10. Store retention samples for five days, in a separate freezer
- 11. Take all necessary measure to avoid cross contamination
- 12. Clean and disinfect freezer after removal of sample.

7.10 Labelling

Labels are used to convey marketing information and product compositional information that is required by regulation.

- 1. Ensure that labels meet regulatory requirements and are appropriate to the product produced.
- 2. Expiry date shall comply with GSO standards for expiration dates.
- 3. Listed menu items shall include information on the presence of allergen listed in GSO 9 on labeling.
- 4. Record on allergens (Refer to record template 15) should be available.

8. Part C: Management

8.1 Traceability

- 1. A procedure must be implemented to trace food items at all stages of the food chain, this is important if a final food product becomes unsafe or unsuitable.
- 2. Food service establishment shall recall or dispose the food product which may have been affected.

8.1.1 Traceability at receiving:

- 1. A procedure to maintain purchasing records, traceability of raw material and packing records shall be implemented i.e. invoices/receiving records capturing. Information collect should include:
 - a) Product name
 - b) Supplier name
 - c) Product identifier i.e. batch number, production date, expiry date
 - d) Receiving dates
 - e) Quantities
- 2. Minimum amount of information required to recall received product if there is a problem, shall be recorded
- 3. In case of removing secondary packaging, food handler shall follow a procedure to maintain traceability of products.

8.1.2 Traceability at storage

- 1. Ingredients shall be labelled appropriately to facilitate identification and traceability.
- 2. In process products and final products shall be labelled appropriately to facilitate identification and traceability.
- 3. In case of moving ingredients/in process products from its original container to another, products identification and traceability shall be maintained i.e. apply the original label to the new container, transfer traceability information to the new container.

8.1.3 Traceability at processing

- 1. In processing areas, ingredients and in process product's identification and traceability shall be maintained. I.e. ingredients are identifiable and easy to trace.
- 2. In process products and final products shall be labelled appropriately to facilitate identification and traceability.
- 3. In case of moving ingredients/in process products from its original container to another, products identification and traceability shall be maintained i.e. apply the original label to the new container, transfer traceability information to the new container.

4. When adding ingredients to a product, minimum amount of information required to identify and recall product if there is a problem shall be recorded i.e. information captured in production records

8.1.4 Traceability at Display/Dispatch/Transportation

- 1. Products shall be labelled appropriately to facilitate identification and traceability.
- 2. In case of moving products from its original container to another, products identification and traceability shall be maintained i.e. apply the original label to the new container, transfer traceability information to the new container.
- 3. Where applicable, records of clients receiving the final products should be maintained to facilitate traceability and recalls if required.

8.1.5 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

- a. Receiving records
- b. Storage records
- c. Processing/ production records
- d. Display/ Dispatch/ transportation records (Refer to Record template 16- supplied food)
- e. Mock recalls in case of any

8.2 Recall Plan

- 1. Any affected stock or product shall be isolated when notified by a supplier of by MoPH that a product is recalled.
- 2. A process to manage a recall event shall be developed. The process shall include:
 - a) Who would be responsible for managing actions during a recall situation?
 - b) How affected stock would be identified and isolated.
 - c) What is the process for disposing affected stock?

Refer to MoPH guidance material on recall.

8.3 Non-conformances

8.3.1 Control of non-conformance or action taken in case of any non-conformance

A non-conformance is any situation where there is a deviation from, or failure to meet, a prescribed standard or specification.

- 1) In the event of a non-conformance there shall be a process in place to identify affected product and any factors, equipment or personnel that are causing the non-conformance.
- 2) Any non-confirming product, areas, processes or equipment shall be identified and isolated/segregated to prevent further failure, cross contamination or release of non-conforming product.
- 3) The non-conformance process shall also include:
 - a) How control is regained (how the cause of the non-conformances can be stopped). What corrective action are put in place?
 - b) How a reoccurrence can be prevented (preventative actions)
 - c) How affected product, equipment and processing areas are cleared for use again, reworked, or disposed of.

8.3.2 Identification of Non-Conforming Product, Equipment or Areas

- 1) All non-conforming product shall be clearly identified (labelled) and segregated from conforming product to avoid accidental use.
- 2) Non-conforming equipment and areas shall be clearly identified (e.g. tape, signs). Ideally equipment should be turned off and removed from use.

8.3.3 Managing Non-Conformances

- 1. All non-conformances (product, equipment or processes) should be recorded, including:
 - a) The time it was identified
 - b) Details of the non-conformance
 - c) Details of affected product
 - d) Who identified the non-conformance?
- 2. All non-conformances should be addressed by someone that is suitably knowledgeable and experience to be able to effectively address the non-conformance (e.g. a production supervisor to address a problem on the production line or the engineer to address an equipment problem).
- 3. Resolved non-conformances should be notified to someone that is suitably knowledgeable and experienced to be able to reliably review the effectiveness of the corrective/preventative actions (e.g. the quality manager or the PIC).
- 4. Corrective/preventative actions should be recorded, including:
 - a) Identification of the non-conformance
 - b) Details of the actions taken to address the problem and to prevent its reoccurrence
 - c) Name of the person responsible for the actions taken
 - d) Time that the product, equipment or process was determined to be compliant for further use.
 - e) The name of the person (including any comments or actions taken) that reviewed the effectiveness of the actions taken (this maybe done during periodic/annual internal reviews of the quality management system).

8.3.4 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified and signed by the assigned personnel:

a) Non-conformance records (Refer to Record template 17)

8.4 Customer Complaint Handling

8.4.1 Managing Complaint

- 1. A process for managing complaints shall be in place. The process should be documented and include:
 - a. The process for receiving, evaluations, classification, investigations and addressing of complaints.
 - b. Identify the person or people responsible for receiving, evaluating, categorizing, investigating and addressing complaints.
- 2. All complaints shall be recorded, investigated and corrective action taken. The results of the investigation shall be documented. Root cause analysis should be used.
- 3. All complaints related to food safety shall be investigated by appropriately competent person.
- 4. As part of the complaints handling procedure, complaints should be periodically reviewed to identify adverse trends (monitor complaints trends) in product safety, quality, and complaint process timeliness. Complaints shall be reviewed also as needed.
- 5. The information received from the complainant shall be documented and in the complaint records which include:
 - a) The date of the complaint.
 - b) The name of complainant, their address and phone numbers.
 - c) The nature and details of the complaint (for example, illness, allergic reaction, quality issue, labelling issue).
 - d) The product affected.
 - e) Where the product was obtained.
- 6. Corrective actions shall be documented and include, the required work or change and deadlines. Records of the action should be maintained including the completion date.

8.4.2 Documents and Records

The following documents and records should be available on site, updated according to procedures completed on time, dated, verified, and signed by the assigned personnel:

a) Customer complaints records (Refer to Record template 18)

9. **RECORDS/FORMATS/SUPPLEMENTS**

To assist small business in the implementation of the requirements described in this document Records templates are attached as annex 2. Food service establishments choosing to implement other Food safety program are to develop their own documentation.

10. REFERENCES

For further reading, here is the below list of the main references consulted during the drafting of this document:

FAO

- Food and Agriculture Organization of the United Nations (FAO). 2008. Risk-based food inspection manual. Rome, FAO Food and Nutrition Paper. Available at http://www.fao.org/3/a-i0096e.pdf

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- Canadian Food Inspection Agency (CFIA). 2013. Processed Products Establishment Inspection Manual.
- Canadian Food Inspection Agency (CFIA). 2010. Guide to Food Safety.
- Canada, Government of New Brunswick. 2013. Public Health Inspector Guide to Food Premises Inspections.

New Zealand

- Ministry of primary Industries (MPI). March 2017. Template Food Control Plan Serve Safe.
- Ministry of primary Industries (MPI). February 2010. Processed Meats Code of Practice.

Australia

 Government of Australian Capital Territory (ACT) . 2018. Food Business Inspection Manual, A manual for Public Health Officers conducting food business inspections in the ACT.

UK

- Food safety Authority (FSA) 2015. Meat industry guide.

• Codex:

Code of Hygienic Practice for Precooked and Cooked Foods in Mass Catering, CAC/RCP 39-1993

Other:

- British retail Consortium (BRC). BRC Standard issue 7

11. ANNEXES

Annex 1: Documentation requirements

Requirement	Documents and records	Contracted services
Building Exterior & Construction	 Building Exterior Inspections reports/ records. 	
Building interior	 Building interior inspections reports/records Laboratory reports of the facility's water quality. Contingency plan for service failure. 	
Pest management	 Pest management program Record of pest control activities (Refer to Record template 1) A copy of a valid contract between the food service establishment and the pest control company. A map of trap location or bait station. 	A valid Contract with a pest control company
Cleaning and disinfection	 Cleaning and disinfection program Cleaning and disinfection records (Refer to Record template 2) Relevant certificates and copies of MSDS for the chemicals. Records on the effectiveness of the cleaning and disinfection program and corrective actions. Dishwashing Temperature Monitoring record. 	
Equipment	 Preventive Maintenance Program Calibration Program Maintenance records (Refer to Record template 3) Calibration records Food Grade Certificates for Lubricants and Grease 	
Personnel	 Personal hygiene policies and procedures. Documented procedure to manage food handler sickness/illness. Training program for staffs. Staff training records (Refer to Record template 4) Staff sickness records (Refer to Record template 5) Staffs health certificates issued by medical commission. Laundry records and procedure. 	

Receiving	 Receiving procedures List of suppliers (Refer to Record template 6) Receiving records (Refer to Record template 7) Certificate of analysis of food products and additives (where applicable) Records of food grade status of packaging materials, cleaning chemicals, food contact lubricants and food contact gases. 	
Storage	 Cold Storage Temperature records (Refer to Record template 8.1 and 8.2) 	
Transportation	 Transported food and Transportation vehicles records for temperature and hygiene (Refer to Record template 9) 	
Preparation	 Thawing Temperature records (Refer to Record template 10) Food Sanitizing Records 	
Cooking	 Cooking temperature records (Refer to Record template 11) 	
Cooling	 Cooling temperature records (Refer to Record template 12) 	
Baking	Records of additive additionsBaking temperatures	
Reheating	 Reheating temperature records (Refer to Record template 13) 	
Food display	 Display Temperature records (Refer to Record template 14) 	
Ice cubes making machine	 Training records of use of this equipment Operating instructions for this equipment Maintenance records of this equipment Cleaning records of this equipment 	
Packing	 Certificate of compliance of food grade packaging materials 	
End product	The laboratory test results of food samples.Record of corrective actions taken.Sampling program	A valid contract with an approved lab
Recall plan	 Recall plan (Refer to MoPH guidance material on recall) 	
Managing Non- compliance	 Non-conformance records (Refer to Record template 14) 	
Complaint handling	 Customer complaints records (Refer to Record template 15) 	

Annex 2: Records templates

These are non-mandatory templates of required records which were developed to assist small business in the implementation of the requirements described in this guideline.

Food service establishments choosing to implement internationally recognized Food safety program are to develop their own documentation accordingly. All Food safety program shall be based on the HACCP approach.

These templates can be adapted by the food service based on their scope of operation.

Record template 1 – Pest control Activity records

Date	Pest findings	Pest control method	Pesticide	Concentration	Location of application	Frequency of intervention	Checked by

PIC signature	

Record template 2 – Cleaning records

Date / frequency	Item and areas cleaned	Methods of cleaning	Comments	Checked by

Record template 3 – Maintenance records

Date	ltem	Description of main- tenance checks and or repairs	Frequency	Comments	Checked by

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Record template 4 - Staff training records

Date:	Trainer name:	
Training topic:	Training duration (hours):	
Outcome of the training :		

Attendee Name:	ID:	Signature:

Trainer Signature	PIC signature

Record template 5- Staff sickness records

Staff name	Date of absence	Symptoms	Action Taken	Date of resuming work	Clearance from a medical practitioner for resuming work Yes/ No/) (NA	Checked by

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Record template 6 - Supplier List

Business name	Contact person	Phone	Email	Address	Types of *Goods supplied	Brand name	Item name

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Types of Goods*: All delivered items to the food service establishment: cleaning chemical, food contact

materials (packaging...), food items, additives...

Record template 7 – Receiving records (traceability)

Receiving temperature limits	Receiving temperature	limits
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Date	Supplier	Food type	Quantity	Brand name	Batch / lot number	Food item Tempera- ture upon receiving	Transporta- tion vehicle temperature	Pack- aging is intact	Deliverer Personal hygiene	Decision	Received by

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	•	

Decision: Accepted / Rejected

Record template 8.1 - Cold storage temperature records

Cold	Cold store: walk-in-chiller, fridge									С	olc	l s	to	re	co	de	e:																					
Mon	th:										Ye	ear	:						Te	em	рe	era	tι	ıre	Cı	ritic	al	Lin	nit	:								
Day	01	02	03	04	05	0	6 0	7	08	09	10	11	1	12	13	14		15	16	1	7	18	1	9 2	20	21	22	23	3 2	24	25	20	6 2	7	28	29	30	31
Time	MN	IMN	MN	MN	MN	ıM	NM	INI	MN	MN	IMI	ıMı	N	MN	MN	МГ	N	ΛN	M	м	NI	MN	М	NN	1 N	MN	M	IM	N	1 N	MN	IM	NM	N	MN	MN	MN	IMN
ure																																						
Temperature																																						
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ı																																						

^{*}Temperature are taken daily at the beginning of every shift e.g. morning 'M' at 8.00 and night 'N' at 16.00

Record template 8.2 - Cold storage temperature records

Cold	old store: □ freezer											Сс	ld	sto	or	e d	coc	de	:																							
Mont	h:												Ye	ar:	:							Te	mp	er	at	ur	e (Cri	tic	:al	Li	mi	t:									
Day	01	02	2 (03	04	05	0	6 (07	08	09	9	10	11		12	13	1	14	15	1	16	17	18	3	19	20	2	21	22	2	23	24	25	5	26	27	28	29	9	30	31
Time Temp. (°C)	ММ	M M	NN	ΛN	MN	М	M	N	ΛN	MN	ıM	N	MN	мг	N V	ΛN	М	N IV	1 N	M	N IV	ΛN	MN	М	N	MN	М	NN	1 N	мг	N	INI	MN	ıMı	N	MN	MN	м	м	N	MN	MN
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^{*}Temperature are taken daily at the beginning of every shift e.g. morning 'M' at 8.00 and night 'N' at 16.00

Record template 9 – Transported food & Transportation vehicles

Date	Food type	Food item Temperature during transportation	Transportation vehicles hygiene	Remarks / corrective actions	Checked by

Record template 10 – Thawing records

Date	Time	Food	Food description (weight, size)	Date of starting thawing	Use-by date	Temp. at the end of thawing process	Checked by

PIC signature_

Record template 11 – Cooking temperature records

Critical Cooking	Time/Temperature
Ontrod Cooking	

Date	Time	Food	Food description (weight, size)	Cooking method	Cooking Core Temperature	Cooking Time (duration)	Type of check*	Checked by cook or chef

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*Type of checks:

- Individual: temperature check of every food item Batch: temperature check of one item of a batch a)
- b)

Record template 12 – Cooling temperature records

Critical Cooling temperature	

Food Item	Cooling method	Time started	Temperature of food after 2 hours	Checked by
	Food Item	Food Item Cooling method	Food Item Cooling method Time started	Food Item Cooling method Time started Temperature of food after 2 hours

Record template 13 – Reheating records

Date	Time	Food	Food description ((weight, size	Reheating Core Temp.	Reheating Time (duration)	Checked by

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	anature		

Record template 14– Food temperature records in cold and hot display (buffets)

Date	Food	Time	Core Temp.	Time	Core Temp.	Checked by

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• Core temperature of served food should be checked every 1 hours

Record template 15 – Allergens records

Food item / Menu item	Ingredients	Allergens

Record template 16 – Supplied Food records

(in case of Selling food to other business)

Date	Food supplied to	Address of food service establishment	Food item supplied	Quantity supplied	Food item Temperature	Checked by

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Record template 17 – Non-conformance records

Date	Describe Noncompliance / Nonconformity	Corrective action taken - What did you do to fix it?	Preventive measure- What did you do to stop it from happening again?	Checked by

Record template 15 – Customer complaints records

Date	Name of customer	Phone number	Complaint	Food item (batch / lot, time of purchase)	Actions taken	Checked by

