



## HACCP Guidelines for Food Manufacturing Premises<sup>2005</sup>

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## Introduction



## Introduction

Dubai Municipality, through its quest of ensuring food safety, introduces these guidelines to be followed by the Food & Beverage Suppliers. These guidelines are intended to be generic. Each establishment may choose the program, which is appropriate to its activities.

Assuring the food safety & security of the food supply is a vital part of our country's health mission. As more Food & Beverage Suppliers across the country compete to sell foods to the consumers, it becomes essential that uniform hazard analysis & control guidelines for producing, buying, & selling food products be developed. These guidelines shall be based on science & validated in actual operation. Nowadays, consumers in the Emirates are doing less food preparation & dining out &/or are relying on Manufacturer Food outlets for ready to eat food.

Food science & technology have improved the understanding of the potential microbiological, chemical, & physical hazards in foods. This knowledge can be used to determine the criteria necessary to assure that food products & commodities meet consumer safety expectations with an acceptable risk at the raw material level, the distributor level, & the consumer level.

Extensive scientific research in the area of food safety and hygiene has resulted in establishing many food safety systems. One of the most well-known and recognized system is the Hazard Analysis Critical Control Point (HACCP). HACCP is a system used by the food industry to ensure that all food consumed is safe to eat. HACCP is a systematic approach to hazard identification, assessment of risk and control. It is a structured approach for the control of food safety from the farm to the fork. The concept of HACCP was first introduced during the mid 1960s when a reliable method for manufacturing pathogen free food was required by the US space Programme.

The HACCP approach for food safety moves away from testing of the final product, and instead emphasizes on raw material and process control. Control is taken out of the laboratory and into the processing environment. HACCP provides a structured and systematic approach to the control of identified hazards, which may be biological (microbiological), chemical, physical or a combination of the three. A Critical Control Point (CCP) is a raw material, stage, practice or operation within the process where a hazard has been recognized and steps are in place to eliminate, prevent or reduce the possibility of the hazard occurring.

### **There are seven principles incorporated into the HACCP system (Codex 1997):**

#### **1. Conduct a hazard analysis.**

Identification and description of the product and its' intended use. Assessment of hazards and assessment of risks associated with all stages and practices of product handling and processing.



**2. Determine the critical control points (CCPs):**

That will eliminate or minimize the risk.

**3. Establish critical limits.**

**4. Establish a monitoring system to demonstrate that the CCP is under control.**

**5. Establish a procedure for corrective action when the CCP is seen to be moving out of control.**

**6. Introduce verification procedures to confirm the effectiveness of the HACCP plan.**

**7. Establish documentation and records to demonstrate that the HACCP system is working effectively.**

A HACCP study is carried out in four stages: defining the scope of the study, implementing the study and maintaining the system. It is important to establish the scope of the study, i.e. the area to be addressed by the HACCP plan - from the farm supplier of raw materials through to the manufacturer outlet or consumer. It is also paramount that management is fully supportive of the implementation of HACCP, especially where investing money is concerned.

The Hazard Analysis Critical Control Point (HACCP) concept is a preventative and systematic approach to hazard identification, assessment and control (see above). However, since HACCP is an approach and not a prescriptive system, the concept can be used to develop tailor made systems applicable to the production and marketing of food products in any country.

Such systems should incorporate control systems, which combine both Good Manufacturing Practice (GMP) and HACCP. GMP is a basic and subjective approach, which addresses environmental conditions and the control of working procedures.

However, when combined with the systematic approach used in the HACCP concept, its application results in a significant improvement in quality, and a reduction in related food-borne illness.

Dubai Municipality started the implementation of HACCP in 1999, and now it is mandatory for all food factories in Dubai to apply this system. After the success of HACCP at the food factories, Dubai Municipality is introducing this system to the manufacturer food sector. Hence these guidelines, which are included in this manual, are aimed to be applied by the Food & Beverage Suppliers. We hope that this manual could help all food establishments in Dubai in achieving their objective of providing safe and hygienic food to their consumers.

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## Objective



## 2. Objective

- Facilitate the implementation of Risk Management based program in Dubai Food establishments.
- Ensure that the foods transported, stored, prepared & displayed in Dubai are safe for human consumption.
- Provide the proper understanding that the Food & Beverage Suppliers bear the primary responsibility for food safety;
- Lay down the policy that Food Safety & Hygiene Rules & Guidelines cover all stages of the food chain, from primary production to sale or consumption;
- Reduce of risk factors known to cause food-borne illness as well as other factors that may contribute to food-borne illness & on the promotion of active managerial control of all factors that may cause food-borne illness.
- Ensure protection of public health, the wholesomeness of the product & safety of foodstuffs.
- Improve the risk communication & hazard understanding (microbiological, chemical & physical hazards) among the Food manufactures & Manufacturer business operators in the Emirate.
- Simplify the Food Hygiene & Safety Control measures for the Food & Beverage Suppliers.

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## Scope





### 3. Scope

A Regulation that aims to improve the Food Hygiene Standards across Dubai & raise the awareness of food hygiene issues among Food & Beverage Suppliers and the public. These regulations provide some of the basic legal requirements, which the Food manufactures are required to fulfill. It is very useful in providing interpretation & guidance on the application of the law.

This regulation seeks to ensure the hygiene & safety of foodstuffs at all stages of the foods transported, stored, prepared & displayed in Dubai.

#### **Establishments covered by these Guidelines.**

##### **Food Suppliers includes:**

- |                                                         |                                                       |
|---------------------------------------------------------|-------------------------------------------------------|
| <b>1.1 Fish &amp; Seafood Canning.</b>                  | <b>1.17 Fruit &amp; Vegetables Freezing</b>           |
| <b>1.2 Fish &amp; Seafood Freezing.</b>                 | <b>1.18 Dates Drying &amp; Packaging</b>              |
| <b>1.3 Pickle Processing.</b>                           | <b>1.19 Dry Fruit &amp; Vegetables Packaging</b>      |
| <b>1.4 Dates Trading.</b>                               | <b>1.20 Jam Manufacturing</b>                         |
| <b>1.5 Poultry Trading.</b>                             | <b>1.21 Vegetable Oil Production &amp; Refining</b>   |
| <b>1.6 Fish &amp; Seafood Products Trading</b>          | <b>1.22 Animal Oil &amp; Fat Manufacturing</b>        |
| <b>1.7 Nuts Trading.</b>                                | <b>1.23 Vegetable Ghee Manufacturing</b>              |
| <b>1.8 Soft Drinks &amp; Carbonated Water Trading.</b>  | <b>1.24 Vegetable, Animal Oil &amp; Fat Refilling</b> |
| <b>1.9 General Trading</b>                              | <b>1.25 Manufacture of Dairy Products</b>             |
| <b>1.10 Juice Trading.</b>                              | <b>1.26 Milk Packing</b>                              |
| <b>1.11 Meat Products Manufacturing</b>                 | <b>1.27 Butter Manufacturing</b>                      |
| <b>1.12 Poultry Products manufacturing</b>              | <b>1.28 Cheese Manufacturing</b>                      |
| <b>1.13 Fruit Canning &amp; Packaging</b>               | <b>1.29 Yogurt Manufacturing</b>                      |
| <b>1.14 Vegetables, Legumes Canning &amp; Packaging</b> | <b>1.30 Cream of Milk Manufacturing</b>               |
| <b>1.15 Fruit Juices Manufacturing</b>                  | <b>1.31 Ice Cream Manufacturing</b>                   |
| <b>1.16 Tomato Paste Manufacturing</b>                  | <b>1.32 Grain Mills</b>                               |



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- |                                                         |                                                        |
|---------------------------------------------------------|--------------------------------------------------------|
| <b>1.33 Floor Mills</b>                                 | <b>1.58 Flavours &amp; Fragrances Manufacturing</b>    |
| <b>1.34 Cereal Food Manufacturing</b>                   | <b>1.59 Vinegar Manufacturing</b>                      |
| <b>1.35 Grains Packaging</b>                            | <b>1.60 Juice &amp; Ice Cream Dry Mixes Processing</b> |
| <b>1.36 Rice Husking &amp; Polishing</b>                | <b>1.61 Liquid Pasteurized Egg Production</b>          |
| <b>1.37 Bread Manufacturing</b>                         | <b>1.62 Mineral Water-Bottling</b>                     |
| <b>1.38 Pastry &amp; Sweets Manufacturing</b>           | <b>1.63 Carbonated Water Manufacturing</b>             |
| <b>1.39 Biscuit Manufacturing</b>                       | <b>1.64 Soft Drinks Manufacturing</b>                  |
| <b>1.40 Pasta &amp; Macaroni Manufacturing</b>          | <b>1.65 Fruit Flavoured Drinks Manufacturing</b>       |
| <b>1.41 Potato Chips Manufacturing</b>                  | <b>1.66 Purification of Potable Water</b>              |
| <b>1.42 Cheese Balls Manufacturing</b>                  | <b>1.67 Foodstuff &amp; Beverages Trading</b>          |
| <b>1.43 Crude Sugar Refining</b>                        | <b>1.68 Storage in Silos</b>                           |
| <b>1.44 Sugar Cubes Manufacturing</b>                   | <b>1.69 Refrigerated Storage</b>                       |
| <b>1.45 Sugar Packaging</b>                             | <b>1.70 General Merchandise Warehousing</b>            |
| <b>1.46 Sugar Candies Manufacturing</b>                 | <b>1.71 Baker</b>                                      |
| <b>1.47 Cocoa &amp; Chocolate Candies Manufacturing</b> | <b>1.72 Vegetables &amp; Fruit Trading</b>             |
| <b>1.48 Salt Refining</b>                               | <b>1.73 Health Food Trading</b>                        |
| <b>1.49 Ice Manufacturing</b>                           | <b>1.74 Baby Food Trading</b>                          |
| <b>1.50 Tea Blending &amp; Packaging</b>                | <b>1.75 Snack Food Trading</b>                         |
| <b>1.51 Herbs Packaging</b>                             | <b>1.76 Dairy Products Trading</b>                     |
| <b>1.52 Nuts Roasting &amp; Packaging</b>               | <b>1.77 Canned &amp; Preserved Food Trading</b>        |
| <b>1.53 Salt Packaging</b>                              | <b>1.78 Fresh &amp; Chilled Meat Trading</b>           |
| <b>1.54 Spices Packaging</b>                            | <b>1.79 Frozen Fish &amp; Seafood Trading</b>          |
| <b>1.55 Rose Water Bottling</b>                         |                                                        |
| <b>1.56 Soup Manufacturing</b>                          |                                                        |
| <b>1.57 Baby Food Manufacturing</b>                     |                                                        |



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- |                                                               |                                                    |
|---------------------------------------------------------------|----------------------------------------------------|
| <b>1.80 Salted &amp; Preserved Fish &amp; Seafood Trading</b> | <b>1.88 Confectionery &amp; Chocolate Trading.</b> |
| <b>1.81 Egg Trading</b>                                       | <b>1.89 Pastry Trading.</b>                        |
| <b>1.82 Honey Trading</b>                                     | <b>1.90 Ice Cream Trading.</b>                     |
| <b>1.83 Sugar Trading</b>                                     | <b>1.91 Flour Trading.</b>                         |
| <b>1.84 Tea Trading</b>                                       | <b>1.92 Ghee &amp; Vegetable Oil Trading.</b>      |
| <b>1.85 Coffee Trading</b>                                    | <b>1.93 Salt Trading.</b>                          |
| <b>1.86 Spices Trading</b>                                    | <b>1.94 Mineral Water Trading.</b>                 |
| <b>1.87 Bread &amp; Bakery Products Trading</b>               | <b>1.95 Ice Trading.</b>                           |
|                                                               | <b>1.96 Dried Vegetables &amp; Fruit Trading</b>   |

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Use



#### **4. Use**

- These regulations/procedures of the manual describe how each task is to be completed.
- This manual is developed, based on the principles of Hazard Analysis Critical Control Point (HACCP) determined by Codex Alimentarius.
- This manual describes the broad, scientifically based logic sequences of HACCP principles. Food & Beverage Suppliers shall use the guide to help assess microbiological, chemical & physical hazards that apply to their own operation & implement appropriate & cost effective risk reduction strategies.
- This manual contains the information necessary for the Food & Beverage Suppliers & Manufacturer business operators to meet HACCP system requirements.
- Definitions & the information of this manual will help the Food & Beverage Suppliers to develop a HACCP System.

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## References



## 5. References

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- Codex Alimentarius Commission – Joint FAO/WHO Food Standards Programme. (CD-ROM)  
<http://www.codexalimentarius.net>
- Manufacturer Food Alliance.  
<http://www.hi-tm.com/html/manufacturerfoodalliance.html>
- Food & Agricultural Organization – FAO.  
<http://www.fao.org>
- Food & Drug Administration – FDA.  
<http://www.fda.gov>
- Food Hygiene Regulation<sup>1992</sup> Administrative Order No. 20/1992, issued on 3<sup>rd</sup> February 1992,  
Food Control Section – Public Health Department, Dubai Municipality.  
<http://www.dm.gov.ae>

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## Definitions





## 6. Definitions

### **Adulteration:**

"Adulterated" means food that bears or contains any poisonous or deleterious substance that may render the food impure or injurious to health. Food is also adulterated if it is manufactured, prepared, or stored in a manner that deviates from an HACCP plan, so as to pose discernible increase in hazard risk.

### **Accreditation:** (see Certification)

A procedure by which a recognized independent body accredits organizations, which are involved in the certification of quality systems, products, services or personnel, to recognized national &/or international standards. The accreditation body may also carry out accreditation inspections in its own right. In Ireland the official national organization for accreditation is the National Accreditation Board (NAB) e.g. NAB has accredited the National Standards Authority of Ireland (NSAI) for the certification of quality inspections & in its own right NAB has accredited many food-testing laboratories in Ireland for tests such as fat content.

### **Ambient (Room) Temperature:** (see Danger Zone, End Point Temperature)

The temperature of the surrounding working environment.

### **Analysis:**

A detailed examination, i.e. test of a food, process or area e.g. a laboratory carries out an analysis of a cooked chicken burger to determine its fat content.

### **Antibiotic:**

Chemicals synthetically produced or naturally produced by microorganisms, which are able to kill or stop the growth of another microorganism e.g., penicillin.

### **Antimicrobial:** (see Antibiotic, Disinfectant)

A process or chemical designed to reduce or stop microorganisms from growing e.g. antibiotics, antiseptics, & disinfectants.

### **Approved Source/Supplier/Vendor:**

A reputable or reliable supplier of materials or services used in the preparation of a food e.g. a well-known or established business, which you have done business with before.

### **Assessment:** (see Audit, Environmental Health Officer (EHO), Inspection)

This is the collection, analysis, & interpretation of evidence to determine how well a HACCP plan performs against the needs, standards & expectations of a particular business e.g. normally carried out by a local EHO, but can be carried out by a business themselves.



**Audit:** (see Accreditation, Inspection)

An audit is a systematic & independent process of collecting information about a particular businesses HACCP plan & evaluating this information objectively for the purpose of reporting on the level of compliance between the collected information & established HACCP compliance standards. An audit can involve looking at paperwork & actual working procedures e.g. an accredited food testing laboratory is visited by NAB & its procedures, tests & results are examined to make sure they are correct.

**Bacteria:** (see Microorganism)

Single-celled living organisms, which cannot be seen with the naked eye e.g. salmonella bacteria.

**Bactericide:**

A chemical or process designed to destroy bacteria e.g. chlorine based disinfectant. Term Audit?

**'Best-Before' Date:** (see Food Spoilage, 'Use-by' Date)

The date up until a food can reasonably be expected to retain its best quality if kept under the correct storage conditions. 'Best-before' dates are more about quality than safety e.g. canned & dried foods such as soft drinks, crisps & biscuits.

**Biological Hazard(s):** (see Contamination, Chemical/Physical Hazards, & Intoxication)

Living organisms (e.g. pathogenic bacteria), which may cause harm if they or their products are consumed in food e.g. *Salmonella* bacteria in a ready-to-eat chicken meal.

**Calibration:**

A procedure for ensuring that a known measured output of an instrument such as temperature or weight corresponds to a known national standard value for that property e.g. a temperature probe for a freezer is calibrated to a national standard to have an accuracy of  $\pm 2$  °C. A reading of -20 °C would indicate that the temperature in the freezer is between -18 °C & -22 °C.

**Carrier:** (Asymptotic Carrier)

A person who harbours disease causing organisms inside their bodies & excretes them without suffering from symptoms of that disease e.g. a person recovering from salmonella food poisoning.

**Certification:** (see Accreditation)

A procedure by which a recognized body, following its own independent assessment determines whether a business complies with the requirements of a recognized standard e.g. the National



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Standards Authority of Ireland (NSAI) provides certification for food businesses complying with the requirements of Irish & international standards e.g. I.S.343:2000 & ISO 9001:2000.

**Checklist:** (see Decision Tree)

A written list of points or actions that need to be considered during the planning, implementation, assessment & ongoing operation of a HACCP plan e.g. a caterer is organizing an internal audit of a HACCP plan & writes a checklist of things to examine during the audit.

**Chemical Hazard(s):** (see Contamination, Biological/Physical Hazards, & Intoxication)

Chemicals (e.g. poison), which may cause harm if consumed e.g. bleach in milk.

**Clean:** (see Cleaning, Cleaning Schedule)

A surface free of food particles, dirt, grease & other undesirable debris.

**Cleaning:** (see Clean, Cleaning Schedule)

The physical removal of soil, food residues, dirt, grease & other undesirable debris e.g. scrubbing down a food chopping board

**Cleaning Schedule:** (see Disinfectant, Sanitation Schedule, Sanitizer, Sanitary)

A written schedule used to describe all items, which shall be cleaned & free of soil, food residues, dirt, grease & other undesirable debris. The schedule has details of what (i.e. items to clean), who (i.e. staff responsible), how (i.e. method of cleaning) & when (i.e. frequency of cleaning) e.g. a meat slicer shall be cleaned every day, by the shop assistant by removing all parts & cleaning with detergent.

**Commissary:**

Means a food establishment in which food, containers, equipment, or supplies are stored or handled for use in mobile food facilities, mobile food preparation units, stationary mobile food preparation units or vending machines.

**Commercially Sterile:** (see Sterile)

The condition achieved in a food by heating it alone or in combination with other ingredients or treatments, to render it free of organisms capable of growing in the food at room or ambient temperatures e.g. canned foods.

**Competent Regulatory Authority:** (see Enforcement Officer, Environmental Health Officer)

The organization with responsibility to enforce & ensure compliance with recognized standards &/or the requirements of legislation e.g. the Food Safety Authority of Ireland.



### **Compliance:**

Meeting all the requirements of a recognized standard. A prerequisite of compliance in the food industry is ensuring that the statutory requirements of legislation are met or exceeded e.g. a catering business should comply with the NSAI Irish Standard for Hygiene in the Catering Sector (I.S. 340: 1994) & have in place a food safety management system based on the principles of HACCP to comply with current legislation (S.I. No. 165 of 2000).

### **Conformity:**

All actions in relation to particular guidelines, standards or legislation which are carried out according to established procedures e.g. the temperature of a refrigerator is maintained at 5 °C & the temperature of the food in it is recorded on a daily basis.

### **Contamination:** (see Biological/Chemical/Physical Hazards, Cross-Contamination, Intoxication)

The presence of undesirable chemicals (e.g. detergent), foreign bodies (e.g. glass) or living organisms (e.g. salmonella bacteria) in a food e.g. a raw chicken product is contaminated with salmonella bacteria.

### **Control:**

A process of ensuring that the correct procedures are being followed (**i.e. to control**) & all necessary actions are taken to ensure a food process meets requirements (**i.e. in control**) e.g. the temperature of a beef burger is checked to ensure it has reached 70 °C for 2 minutes before cooking is stopped & the beef burger is served.

### **Control Measure:**

Any action at a control point which can be taken or used to prevent a hazard or reduce it to an acceptable safe level e.g. keeping the temperature of cooked ham at  $\leq 5$  °C.

### **Control Point:**

A point or step in a food process where a control measure can be applied e.g. temperature measurement of a refrigerated storage unit. Any distinct procedure or stem in receiving, storing, handling, preparing, displaying or dispensing a food.

### **Core or Centre Temperature:**

The temperature at the centre of a food e.g. the core temperature of a cooked pork sausage during cooking was maintained at 70 °C for 2 minutes.



### **Corrective Action:**

The action taken when the monitoring of a critical control point indicates a potential loss of control, or when a critical limit is not met e.g. the temperature of cooked meat in a refrigerator rises to  $>10$  °C for over 24 hours due to a technical fault in the refrigerator. The cooked meat is destroyed & the refrigerator is repaired by the manufacturer to maintain new cooked meat supplies at the correct temperature of  $\leq 5$  °C.

### **Critical Control Point:** <sup>(CCP)</sup>

A step in which control can be applied & is essential to prevent a food safety hazard or reduce it to an acceptable level e.g. cooking time & temperature for a raw chicken product. Means a control point where any loss of control may result in an unacceptable health risk pertaining to a food.

### **Critical Limit:** <sup>(see Target Level, Tolerance)</sup>

A maximum or minimum limit (i.e. value) at a CCP, which can be monitored & separates acceptable from unacceptable e.g. the core temperature at the centre of a cooked beef burger following cooking shall reach 70 °C for 2 minutes. 'Use-by' Date?. Means the maximum or minimum value to which a physical, chemical or biological parameter shall be controlled at a critical control point to minimize the risk that an identified food safety hazard may occur.

### **Food Processing:** <sup>(see Food, Food Establishment, Food Handler, High-Risk Food, Pasteurization, Ready-to-Eat Food)</sup>

A term commonly used to describe food, which has being produced on industrial scale e.g. frozen ready meals.

### **Food Thermometer:** <sup>(see Core Temperature, Temperature Probe)</sup>

A thermometer used to indicate temperature in foods. Food thermometers come in many forms such as digital handheld:

Thermometers & simple insertion thermometers e.g. a meat Thermometer is inserted into a pork product to indicate its Temperature during cooking.

### **Foodborne Illness:** <sup>(see Gastroenteritis, Foodborne Outbreak, Food Poisoning)</sup>

Illness resulting from infection or intoxication after eating or drinking a contaminated food e.g. eating a beef burger contaminated with *E. coli* O157:H7 & becoming ill.

### **Foodborne Outbreak:** <sup>(see Gastroenteritis, Foodborne Illness, Food Poisoning)</sup>

Two or more people developing the same illness after eating or drinking the same food e.g. a number of people visit a restaurant, eat the same meal contaminated with salmonella bacteria & become ill.



**Food Poisoning:** (see Gastroenteritis, Food Illness, Biological/Chemical Hazards)

A foodborne illness resulting from the consumption of a biologically or chemically contaminated food e.g. eating a cooked chicken breast contaminated with salmonella bacteria & becoming ill.

**Food Spoilage:** (see 'Best-before' Date)

Food that has decayed or decomposed due to the growth of microorganisms e.g. sour milk.

**Fungi:** (see Moulds, Yeasts)

A large group of living organisms with many forms, which vary from very small single celled organisms (e.g. yeasts) to larger multicellular organisms (e.g. moulds, mildews & mushrooms). All fungi are incapable of photosynthesis & are therefore not plants e.g. bread mould.

**Gastroenteritis:** (see Foodborne Illness, Foodborne Outbreak, Food Poisoning)

A medical condition which affects the stomach & intestines, commonly associated with foodborne illness e.g. eating shellfish contaminated with Norwalk-like virus & becoming ill with symptoms of diarrhoea, nausea & vomiting.

**Generic HACCP Plan:** (see HACCP Plan, Hazard Analysis, HACCP)

Examples of readily available HACCP plans, which can be used as guides to devise a specific HACCP plan for a specific individual process.

**Good Manufacturing Practice (GMP):** (see SOP, Specification)

The minimum quality & safety requirements aimed at ensuring that foods are prepared in a consistent manner according to agreed specifications e.g. raw & cooked food products are stored in separate refrigerators.

**HACCP Plan/System:**

A food or process specific document written according to the principles of HACCP to ensure the control of hazards, which are significant for the safety of that food e.g. a HACCP plan for a cooked ham sandwich. HACCP Plan?

**Cross-Contamination:** (see Biological Hazards, Contamination)

The transfer of microorganisms from one source such as raw food, people, equipment or the environment to another source such as cooked food e.g. raw meat held on the top shelf of a refrigerator drips onto a cake held on the bottom shelf & bacteria will spread from the meat to the cake.



**Danger Zone:** (see Pathogen)

The temperature conditions or temperature ranges under which most pathogenic microorganisms may grow & multiply in foods e.g. between 5 °C & 63 °C.

**Date of Minimum Durability:** (see 'Best-before' Date, 'Use-by' Date)

The date until which a food retains its specific properties when properly stored e.g. a 'Best-before' date on a packet of crisps or a 'Use-by' date on a freshly prepared salad.

**Decision Tree:** (see Checklist, Critical Control Point)

A series of questions used at each step with an identified hazard, in the preparation of a food to identify the critical control points.

**Detergent:** (see Clean, Cleaning, Detergent, Sanitizer, Spore Forming, Microorganism)

A chemical used to remove grease, dirt & food particles from a surface e.g. washing-up liquid, soap.

**Disinfectant:** (see Clean, Cleaning, Detergent, Sanitizer, Spore Forming Microorganisms)

A chemical or process used to reduce numbers of microorganisms but not necessarily microbial spores on a surface to a safe or acceptable level e.g. chlorine (i.e. bleach), ultra-violet light.

**Employee:**

Any person working in a food facility covered by this regulation.

**Endpoint Temperature:** (see Core Temperature)

The measured temperature of a food at the end of preparation e.g. a raw lamb kebab is cooked to an endpoint core temperature of 70 °C for 2 minutes.

**Enforcement Officer:** (see Competent Regulatory Authority, EHO)

Authorized officer appointed to enforce relevant legislation e.g. environmental health officers (EHOs), sea fisheries officers, veterinary inspectors, & dairy produce inspectors.

**Environmental Health Officer (EHO):** (see Competent Regulatory Authority, Enforcement Officer)

EHOs develop, regulate, enforce & monitor laws & regulations governing public health including food safety in order to promote good health, hygiene & environmental practices.

**Equipment:**

All cooking units, hoods, cutting blocks, processing machines, tables, refrigerators, sinks, dish machines, steam tables & other items used in a food facility.



**Flow Diagram:** (see Hazard Analysis & Critical Control Points, Critical Control Point)

A graphical diagram detailing the sequence of operations involved with a particular food product or process, usually from receipt of raw materials to the final consumer. In HACCP these charts can help identify the CCPs e.g. a flow diagram showing the sequence of steps in the preparation of a cooked chicken breast sandwich.

**Food:**

Any substance used or intended to be used for normal human consumption e.g. water, beer, raw & cooked foods. Any raw or processed substance, ice, beverage, including water, or ingredient intended to be used as food, drink, confection, or condiment for human consumption.

**Food Contact Surface:**

A surface of equipment or a utensil with, which food normally comes in to contact.

**Food Establishment:**

Any room, building, or place, or portion thereof, maintained, used or operated for the purpose of storing, preparing, serving, manufacturing, packaging, transporting, salvaging, or otherwise handling food at the manufacturer level.

**Food Establishment/Business/Premises:**

Any establishment that produces, stores, distributes or sells food to consumers. These establishments can include preparation, storage, distribution & manufacturing e.g. a caterer, manufacturer, a sales depot, & a haulage company.

**Food Handler:**

Any person, who handles or prepares food whether packaged or unpackaged e.g. a person preparing a chicken sandwich in a cafe.

**Food Hygiene:**

All measures necessary to ensure the safety & quality of food for sale or supply to the consumer e.g. food preparation, processing, storage, distribution, handling, display & manufacturer.

**Food Preparation:**

“Food preparation” means packaging, processing, assembling, portioning, or any operation that changes the form, flavor, or consistency of food, but does not include trimming of produce.

**Frozen Food:**

“Frozen food” means a food maintained at a temperature at which all moisture therein is in a solid state.





### **HACCP:**

“HACCP” means Hazard Analysis Critical Control Point.

### **HACCP Plan:**

“HACCP plan” means a written document that delineates the formal procedures for following the Hazard Analysis Critical Control Point principles that were developed by the National Advisory Committee on Microbiological Criteria for Foods (NACMCF) & complies with Section 114055 of the Health & Safety code.

### **HACCP Principles:**

“HACCP principles” means the seven basic steps of HACCP, as prescribed below:

1. Conduct hazard analysis. Prepare a list of steps in the process where significant hazards occur & describe the preventive measures.
2. Identify the critical control points (CCP) in the process.
3. Establish critical limits for preventive measures associated with each CCP identified.
4. Monitor each CCP
5. Establish corrective action to be taken when a critical limit deviation occurs
6. Establish verification procedures
7. Establish record keeping & documentation procedures

### **Hazard:**

“Hazard” means a biological, chemical, or physical property that may cause an unacceptable public health risk.

**Hazard:** (see Biological, Chemical, Physical Hazards)

The potential to cause harm. Hazards (i.e. dangers) may be biological, chemical or physical e.g. *Salmonella* species in a chicken burger (biological hazard), detergent in milk (chemical hazard) or glass in a breakfast cereal (physical hazard).

**Hazard Analysis:** (see HACCP, Hazard)

A procedure for looking at a specific food process, identifying all hazards associated with that process & deciding which are significant to food safety & as such should be included in a HACCP plan e.g. the cross-contamination of a cooked chicken breast with campylobacter bacteria from raw chicken is identified as a hazard due to poor hygiene practice.

**Hazard Analysis & Critical Control Point:** (HACCP) (see CCP, Hazard, Hazard Analysis)

A system that identifies, evaluates & controls hazards (i.e. dangers), which are significant to a food's safety e.g. a HACCP plan identifies the hazards in the preparation of a cooked pork sausage as the growth of *Salmonella* species & sets a CCP as the cooking temperature & time. Careful monitoring of the temperature & time will help to control & prevent salmonella growth.



**High-Risk Activity:** (see High-Risk Foods)

Activities where high-risk foods are prepared & where the potential exists to put vulnerable people, (i.e. infants, the frail & elderly, pregnant women & the sick) or large numbers of consumers at serious risk e.g. a street vendor selling unpackaged ready-to-eat ham sandwiches from an un-refrigerated service unit.

**High-Risk Food:** (see Pathogen, Ready-to-Eat Food)

Food which can support the growth of dangerous organisms (i.e. pathogens) & which will not be subjected to any further processing (e.g. cooking) which would destroy or reduce numbers of such organisms to a safe level prior to consumption e.g. raw seafoods, freshly prepared salads, some meats & dairy products.

**Implementation:**

The initial, ongoing use & updating of a HACCP plan.

**Infection:** (see Foodborne Illness, Pathogen, Microorganism)

An illness that results from, eating food contaminated with pathogenic organisms e.g. salmonellosis illness.

**Infective Dose:** (see Foodborne Illness, Pathogen, Microorganism)

The minimum number of a specific organism, which is needed to cause an illness e.g. some evidence suggests that the infective dose of *E. coli* O157:H7 is less than 10 individual microbial cells.

**Inspection:** (see Audit)

An internal or external examination of a food, food process, quality or food safety system such as HACCP, in order to establish compliance with specific business, regulatory or legislative requirements e.g. an inspection of a restaurant by an EHO to ensure that hygiene regulations are been complied with.

**Intoxication:** (see Foodborne Illness, Pathogen, Microorganism, Toxin)

An illness that results from eating food containing toxic chemicals or toxins produced by pathogenic microorganisms e.g. Botulism caused by eating a canned food containing the toxin produced by the microorganism *Clostridium botulinum*.

**Low-Risk Activity:**

Activity where the potential to cause harm to consumers is low e.g. selling pre-packed chocolate bars in a newsagent.



**Material Safety Data Sheets:** (MSDS)

Documents, which contain safety information about specific substances. An MSDS shall be available for every chemical found in the work place & are available from the chemical supplier or manufacturer e.g. an MSDS for sodium hypochloride commonly found in bleach products used in disinfections procedures.

**Monitoring:** (see Control Limit, Critical Control Points)

The systematic observation, measurement & recording of the significant factors for control of a hazard at CCPs & assessing whether a CCP is under control e.g. recording the final cooking temperature & time for a cooked chicken breast.

**Moulds:** (see Fungi, Yeasts)

A group of multicellular fungi used in the production of foods (e.g. cheese) & also responsible for the spoilage of some foods (e.g. bread mould).

**Microorganism:** (see Bacteria, Biological Hazards, Contamination, Pathogen, Parasite, Virus)

A life-form that generally cannot be seen with the naked eye e.g. bacteria, viruses, yeasts, moulds & parasites.

**Non-Conforming Product/Non-Conformity:**

A product or procedure that does not meet the required standard or specification.

**Parasite:**

A life-form that grows & feeds in or on a host life form without contributing to the well being of the host but not necessarily causing disease e.g. *Trichinella spiralis* is a parasitic worm which causes human illness, commonly associated with eating undercooked pork.

**Pasteurization:** (see Pathogen, Spore Forming, Microorganism, Vegetative Microorganisms)

A heat treatment applied to food to destroy vegetative pathogenic microorganisms (i.e. not spores) & reduce numbers of other microorganisms to decrease the rate of spoilage e.g. raw milk is pasteurized by heating to 72 °C for 15 seconds.

**Pathogen/Pathogenic:** (see Biological Hazard, Spore Forming, Vegetative Microorganisms)

A microorganism that is capable of causing illness or disease e.g. *Salmonella*, *E. coli* O157 bacteria, viruses & parasites.

**Perishable Food:** (see High-Risk Food, Ready-to-Eat Food, Shelf-Life)

A term applied to food with a short shelf-life which includes high-risk foods e.g. freshly prepared coleslaw.



**Premises:**

The food facility, its contents & the contiguous land or property & its facilities & contents that are under the control of the permit holder that may impact food establishment personnel, facilities, or operations.

**Physical Hazard(s):** (see Contamination, Biological/Chemical Hazards)

Materials (e.g. glass or metal fragments) that may cause harm if consumed in foods e.g. piece of glass in a breakfast cereal.

**Personal Hygiene:**

Individual cleanliness & practices of cleanliness or personal care e.g. washing hands with soap & hot water after using the toilet.

**Potable Water:**

Water, which is fit for human consumption or for use in food preparation & complies with the requirements of current legislation (i.e. Irish Statutory Instrument No. 81 of 1988) e.g. treated mains water.

**Potentially Hazardous Food:**

Food that is in a form capable of supporting rapid & progressive growth of infectious or toxigenic microorganisms that may cause food infections/food poisoning.

**Prerequisites:** (Safety Support Measures)

Practices & procedures required prior to & during the implementation & ongoing operation of a HACCP system e.g. premises, equipment, staff training, pest control, waste management.

**Quality Assurance:** (see Accreditation, Audit, Calibration, Control)

A system which endeavours to maintain the quality & safety aspects of a food from preparation, production, storage, distribution through to final consumption e.g. An Bord Bia Egg Quality Assurance Scheme

**Raw Materials:** (see Specification)

All foods used as foods themselves or ingredients in other foods, including those, which have been pre-cooked, or packaging & food contact materials e.g. water, meat, vegetables, eggs, salt.

**Ready-to-Eat Foods:** (see High-Risk Foods)

Any food (including beverages) which is normally consumed in its raw state or food which has been cooked or processed & does not require further cooking or processing to ensure its safety e.g. coleslaw, cooked sliced meats & smoked salmon. Food that is in a form that is edible without



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additional washing, cooking, or preparation by the food facility or the consumer & that is reasonably expected to be consumed in that form.

**Records:**

Evidence, written or otherwise, of a working HACCP system & its prerequisites e.g. cooking temperatures, delivery or cleaning records.

**Manufacturer:**

The preparing, serving, transporting, or otherwise handling food for dispensing or sale directly to the consumer.

**Risk:** (see High-Risk Foods, Risk Assessment)

The probability of a hazard occurring e.g. the risk of a cooked pork sausage not reaching the correct temperature during a defined cooking time.

**Risk Assessment:** (see High-Risk Foods, Risk)

A process of identifying hazards, assessing risks, gauging severity & evaluating their significance.

**Sanitary:** (see Cleaning/Sanitation Schedule, Disinfectant, Sanitizer)

A surface, which is free from pathogens & other hazardous (i.e. dangerous) substances.

**Shelf-Life:** (see 'Best-before' Date, Food Spoilage, 'Use-by' Date, Date of Minimum Durability)

The period of time during which a food will remain edible (i.e. 'Best-before' date) & microbiologically safe (i.e. 'Use-by' date) to consume.

**Standard Operating Procedure: (SOP)** (see Good Manufacturing Practices, Specification)

A practiced procedure of controlling a food operation in accordance with agreed specifications to obtain a safe quality food product. SOPs are essential food safety practices that should already be in place as a prerequisite before & after a HACCP plan is implemented e.g. a written SOP on how to safely cook a beef burger.

**Step:**

Any point, procedure, operation, action or stage in the preparation & delivery of a food to the final consumer e.g. cooking is a step in the preparation of a cooked chicken sandwich.

**Sterile/Sterilize:** (see Commercially Sterile, Microorganism)

Free from all living (i.e. viable) organisms.

**Sanitation Schedule:** (see Cleaning Schedule, Disinfectant, Sanitary, Sanitizer)

A cleaning schedule followed by disinfections of all surfaces.



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**Sanitizer:** (see Disinfectant, Sanitary, Sanitation Schedule)

A chemical or process used to clean & reduce numbers of microorganisms on a surface e.g. chlorine, ultra violet light. The application of heat or approved chemical sanitizer on cleaned food contact surfaces.

**Severity:**

The seriousness or magnitude of a specific hazard or its consequences.

**Specification:** (see Food, Raw Material, SOP)

A written document (i.e. usually between supplier & customer) which defines the standards which separates acceptable from unacceptable for a specific ingredient or food product e.g. pre-packed sliced cooked ham will have a meat content of 90% & be free of all pathogens.

**Spore Forming Microorganism:** (see Vegetative Microorganism)

Microorganisms that can form resistant, inactive, spores inside their vegetative cells called endospores. Endospores can survive normal cooking. The spore state is a dormant stage or period of no growth. Under favourable conditions spores can produce a vegetative microbial cell which can subsequently grow & multiply in the food e.g. species of *Bacillus* & *Clostridium* bacteria can produce endospores.

**Stock Rotation:** (see 'Best-before', Date of Minimum Durability 'Use-by' Date)

The practice of moving (rotating) food stocks so that stocks with the closest approaching 'Best-before' or 'Use-by' date are used first.

**Target Level:** (see Control Measure, Critical Limit)

This is a more stringent limit for a control measure at a critical control point than the critical limit itself. Target levels can be applied at CCPs to ensure that action can be taken prior to the actual critical limit being exceeded, thereby avoiding the need for more series corrective action e.g. if the critical limit for refrigerated storage of raw chicken is 5 °C then the target level might be 3 °C.

**Temperature Control:** (see Danger Zone, End Point Temperature, High Risk Foods, Pathogen, Temperature Probe)

The practice of storing foods particularly high-risk foods, outside the temperatures in which microorganisms, particularly pathogens, will grow best e.g. storing coleslaw in the refrigerator at  $\leq 5$  °C.

**Temperature Probe:** (see Monitoring)

The part of temperature measuring equipment that is used to physically make temperature readings e.g. inserting a temperature probe into a chicken product to monitor temperature during cooking.



**Tolerance:** (see Calibration, Critical Limit, Specification, Target Level)

A specified level or degree of latitude set between the target level & the critical limit (normally defined in a specification) which if not met will make a food or its processing unacceptable e.g. where the critical limit for refrigerated storage of raw chicken product is 5 °C & the target level is 3 °C then the tolerance is 3 °C ± 2 °C. Any temperature outside this temperature range is outside the tolerance & unacceptable.

**Toxic Materials:** (see Biological, Chemical, Physical Hazards, Intoxication, Toxin)

These are poisonous substances that are not intended for human consumption e.g. pesticides, metals such as mercury & lead.

**Toxin:** (see Biological, Chemical, Physical Hazards, Intoxication)

A toxin is a chemical (i.e. poison) that will cause illness & may be found in food naturally or due to biological, chemical or physical contamination e.g. Botulism, a form of food poisoning (i.e. intoxication) is the result of ingestion of the toxin produced by *Clostridium botulinum*.

**Traceability:**

The ability of a food business to follow a product batch & its raw materials from the preparation process through to the consumer & backwards to the raw materials suppliers e.g. bar-coding products, batch numbers. Sanitary?

**'Use-by' Date:** (see 'Best-before' Date, Date of Minimum Durability, High-Risk Foods, Ready-to-Eat Food)

The date up until a food can reasonably be expected to be safe to consume if kept under the correct storage conditions. 'Use by' dates are more about safety than quality e.g. high-risk foods such as prepared salads, meat & dairy products.

**Utensil:**

"Utensil" means any kitchenware, tableware, cutlery, glassware, container, implement, high chair tray, or other item with which food comes in contact during storage, transportation, display, preparation, serving, sale, or through use by an employee or consumer.

**Validation:** (see Control, Records, Monitoring, Specification, Traceability etc)

Obtaining evidence that the elements of a HACCP plan are effective e.g. microbiological examination of equipment surfaces before & after sanitation to determine if the sanitation procedure was effective in reducing numbers of microorganisms to desired levels.



**Vegetative Microorganism:** (see Spore Forming Microorganism)

A form in which a microorganism is able to grow, given the correct conditions. Unlike endospores, vegetative cells are relatively poor at surviving environmental stresses such as high temperature e.g. salmonella bacteria are vegetative cells & don't produce endospores.

**Verification:** (see Compliance, Conformity, Control, Monitoring, Traceability, Validation etc)

The application of methods, procedures, tests & other evaluations, in addition to monitoring to determine compliance with a HACCP plan e.g. microbiological analysis of a chicken burger to verify that it is free of campylobacter bacteria after cooking.

**Virus:** (see Bacteria, Biological Hazard, Foodborne Illness, Pathogen)

A simple, microscopic life form, which requires a living host for reproduction & can cause human illness e.g. Norwalk-like virus in shellfish or water.

**Vulnerable Groups:** (see High-Risk Foods)

These are people who are more susceptible than others to foodborne illness e.g. the very young, the very old, pregnant women or people suffering from illnesses.

**Waste:**

Any product, packaging or materials that are unwanted & intended to be disposed of & removed from a food area or establishment.

**Yeasts:** (see Fungi, Moulds)

A group of single celled fungi used in the production of some foods (e.g. beer, wine, bread) & also responsible for the spoilage of foods (e.g. fruit juice, beer, wine).

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## Pre-requisite Programs



## 7. Pre-requisite Programs

- Steps or procedures that control the in-plant environmental conditions that provide a foundation for safe food production or sale directly to the consumer.
- Each segment of the manufacturer food industry shall provide the conditions necessary to protect food while it is under their control. This has been accomplished through the application of current Good Manufacturing Practices (cGMPs) & Sanitation Standard Operating Procedures (SSOPs). These conditions & practices are now considered to be prerequisite to the implementation of effective HACCP System.
- The effectiveness of the prerequisite programs shall be assessed during the design & implementation of each HACCP System.
- All prerequisite programs shall be documented & regularly audited.

### Prerequisite programs include:

- **Management Policy:**

Management Commitment.

- **Premises & Equipment:**

Construction; design; Drainage; Waste disposal; Linear Product flow, Avoid Cross Contamination, Equipment layout & Maintenance & Calibration.

- **Maintenance & General cleaning:**

Maintenance Schedules; Washing & Sanitizing Facilities; Cleaning & Sanitizing procedures;

- **Pest Control:**

Effective Pest Control Programs.

- **Personal Requirement:**

Personal hygiene, Disease Control, Cleanliness, Education, Training & Supervision.

- **Approved Food Suppliers:**

Supplier's Food Safety Programs; Supplier's guarantee & Supplier's audit.



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- **Food Flow Requirements:**

Sanitary controls, Temperature controls & process controls.

- **Temperature Control:**

Temperature Maintenance Programs, Procedures, Schedules & Calibration.

- **Sampling & Laboratory Analysis:**

Food & Water analysis; Effectiveness of Cleaning verify through swab methods.

- **Internal & External Audits:**

System Compliance through Internal & External audits.

- **Prerequisite Programs Review:**

Effectiveness of the manual through annual reviews & Reviewed manual to be submitted to Food Control Section.

Effective prerequisite programs will simplify HACCP System & minimize the number of Critical Control points (CCPs), which are described in detail in the following chapters.

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## Management Policy



## 7.1 Management Policy

[See Template](#)

The Food establishment shall be committed to a high standard of hygiene and safety of their products and consumers and to implement a hazard management program policy, which is based on consumer satisfaction with the offered product & service.

### Objectives:

- Consumer satisfaction about the degree to which their requirements are met by the establishment.
- Education, motivation & growing awareness of its employees.
- Technical up-gradation of methods, processes & equipment.

### Management policies & procedures:

Owner/CEO/Manager shall maintain policies & procedures for employees to follow in order to assure the production, sale, & / or dispensing of safe food products of designated quality.

#### 1. Person in-charge:

Responsible for assuring compliance by all personnel shall be assigned to competent supervisory personnel.

Personnel who are responsible for identifying sanitation failures or food contamination shall have a background or education &/or experience to enable them to produce clean, safe food.

There shall be at all times at least one supervisory level person on duty during all operating hours, trained in the prevention of food-borne illness & injury.

A Person in-charge shall answer technical questions & provide coaching as needed for transfer of training, organization, self-directed learning, & employee-improved performance.

The Person in-charge shall perform the following duties:

- Assure that no unauthorized persons shall be allowed in the food preparation area/Kitchen.
- Assure that those authorized shall comply with the policies, procedures, & standards of this set requirements.
- Monitor employee hand washing & sanitizing.
- Monitor employee in the goods/foodstuffs receiving, food preparation, cooling of food & hot or cold holding/distribution temperatures.



## **2. Hazard analysis & control:**

Owners/CEOs/managers shall:

- Continually analyze the operations processes to find new & recurring food hazards through food safety audits, environmental monitoring, & self-inspections to identify jobs & processes that have hazards that could lead to food-borne illness.
- Mandate the use of the Manufacturer Food Operations Food Hazard Control Checklist based on safety-assured policies, procedures & standards.
- Maintain appropriate equipment programs to cover the calibration, use, cleaning, maintenance, & eventual replacement of equipment.
- Maintain an up-to-date cleaning & sanitation schedule for all facility areas & equipment with specified employee assignments. Cleaning & sanitizing of utensils & equipment shall be conducted so as to protect against contamination of food, food contact surfaces, or food packaging materials.

## **3. Employee training:**

**Employee training programs shall comply with Dubai Municipality Training Guideline.**

Owners/CEOs/Managers:

- Shall provide training for PICs & supervisors in pertinent food safety matters, food Safety leadership, coaching, & employee empowerment to take action at any time to prevent a problem.
- Shall provide training for new employees in pertinent food safety concerns.
- Maintain a written training program that includes: date, topic, content & attendance.
- All employees shall be issued with documented company rules with regard to hygiene Policy & safety policy.
- Provisions shall be made to train those employees who are not proficient in English.
- Additional training shall be provided as necessary to ensure current knowledge of equipment & process technology.

## **4. Operational improvements:**

Owners/CEOs/managers shall:

- Support improvement of unit performance.



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- PICs, supervisors, & employees shall constantly be aware of environmental conditions, equipment failure, & facility & process performance. Immediate action shall be taken to correct problems.
- Systematic internal & external audits shall be performed in order to evaluate prevention system weaknesses analyze the cause of problems; take action through improved policies, procedures, standards & system development to prevent future problems.

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## Premises & Equipment





## 7.2. Premises & Equipment

[See Template](#)

### 7.2.1 Premises:

#### Objective:

Depending on the nature of the operations, & the risks associated with them, Establishment, equipment & facilities shall be located, designed & constructed to ensure that:

- Contamination is minimized.
- Design & layout permit appropriate maintenance, cleaning & disinfections & minimize air-borne contamination.
- Surfaces & materials, in particular those in contact with food, are non-toxic in intended use &, where necessary, suitably durable, & easy to maintain & clean.
- Where appropriate, suitable facilities are available for temperature, humidity & other controls.
- There is effective protection against pest access & harborage.

Buildings & facilities are designed, constructed & maintained in a manner to prevent contamination. The outside walking & driving areas shall be surfaced with concrete, asphalt or other material so that they do not constitute a source of contamination. Adherence to the current requirements are verified through the establishments written program that outlines the procedures which include all elements in the building, surroundings of the building, outside property, roadways, drainage, building design & construction, workers flow, product flow, sanitary facilities & water/steam/ice quality to ensure satisfactory conditions are maintained.

- **Outside Property:**

The establishment shall be situated not in close proximity to any source of pollution / obnoxious effects (eg. Objectionable odours, smoke, dust or other contaminants).

- **Building design & construction:**

The manufacturer food establishment shall be of sound construction, suitable size, easy to clean & maintain high level of hygienic standards.

According to Dubai Municipality – Food Control Section specification, the building & facilities shall:

1. Provide sufficient space for placement of equipment, display counters & storage of food materials.
2. Floors, walls, Ceilings are constructed of material that is durable, smooth, cleanable & suitable for the manufacturer operations.



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3. Floors are light coloured, waterproof, non-slippery, non-absorbent, easily washable, non-porous in nature & can withstand a high pressure of work. Floors are sufficiently sloped for liquids to drain to trapped outlets.
4. Walls are light coloured, well joined, waterproof, non-absorbent & washable.
5. Floors & wall junctures coved, closed or sealed & easy to clean.
6. Mats & carpets are designed to be removable & easily cleanable.
7. Ceilings are designed & constructed in such a way that prevents the accumulation of dirt, condensation, mould formation, & flaking.
8. Overhead structures are designed & installed in a manner that prevents contamination of food, food contact surfaces & food packaging materials.
9. Utility service lines & pipes may not be unnecessarily exposed. Exposed utility service lines & pipes installed so they do not obstruct or prevent cleaning of the floors, walls & ceilings.
10. Doors have smooth, light colour, non-absorbent surfaces, self-closing, & washable type & are close fitting. Windows are equipped with close fitting screens. Internal windows sills, if any, shall be sloped to prevent accumulation of dusts. Stairs & elevators are situated & constructed so that there is no contamination of food, food contact surfaces & Food packaging materials.
11. The drains shall be of underground type, allowing the surface of the flooring to remain clean & hygienic at any given time. All drain openings are covered with perforated appropriate traps & vents, which shall allow only the wastewater to drain off & stops all other solid wastes.
12. The drainage slopes are designed & constructed in such a way that will allow smooth & free flow of wastewater. The drains & waterline pipes are laid in such a way that will not cross connect anywhere in the premises.
13. Adequate non-glaring lights are provided to facilitate maximum visibility in all the areas. All the lights shall be sufficiently protected with outer covers in case of any breakage. The lighting does not alter food colors & the intensity of the lighting is not less than:

550	lux	(50 foot candles)	at inspection points.
220	lux	(20 foot candles)	in work rooms.
110	lux	(10 foot candles)	In other areas.



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14. Adequate Ventilation is provided to prevent built-up of heat, steam, condensation or dust & to remove contaminated air. The ventilation / exhaust openings are covered with fly proofing nets / screens, which shall be cleaned periodically.
15. Effective air curtains shall be provided at all the entry points, which will prevent the entries of flies.
16. The solid wastes shall be collected in tubs with closed lid are kept in separate room & disposed off every four hours frequency. Accumulation of solid wastes & delaying of disposal may cause microbial contamination. The rooms are always maintained neat & clean.
17. The hand washing & sanitizing facilities shall be provided with non hand operable system at all kitchen entry points. The above facilities shall equip with hot & cold potable running water, liquid soaps, disinfectants, nailbrush, disposable towels / Hand dryers & foot operable hand towel collecting bins. The signboard shall direct the hand washing & sanitizing procedures for the staff & workers.
18. The Toilet rooms shall be conveniently located & accessible to employees during all hours of operations. The toilet rooms located inside the manufacturer food establishment does not open directly in to the manufacturer food establishment. The toilet room shall be completely enclosed & provided with a tight fitting-self closing door.
19. The change room / Lunch room facility shall be provided with self closing doors, individual lockers that do not lead directly into food processing areas & are correctly ventilated & maintained.
20. The water that comes in direct contact with the food, food contact surfaces & food packaging materials (or) used in the manufacturing of ice shall be of "potable quality". Potable hot & cold water is provided at adequate temperatures, pressures & in quantities sufficient for all operations & clean up needs. There shall be no cross connection between potable & non-potable water supply system. The water shall meet stipulated bacteriological standards & the records shall be available upon request by the regulatory authority.
21. Ice is used as an ingredient or indirect contact with food made from potable water. It shall meet stipulated bacteriological standards, which is tested on a semi annual basis & records of water potability testing shall be available upon request.



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22. Steam coming into direct contact with food or food contact surfaces is generated from potable quality of water.
23. Prevention of cross contamination, the manufacturer food establishment shall be designed & constructed in a manner that the high & low risk areas are well separated. The flow of work shall be unidirectional & the workers shall thoroughly clean & sanitize their hands after each absence from their station. The equipments & utensils shall not to be placed from unclean area to clean. The different products shall not be processed at the same time. The solid wastes shall be frequently collected with closed lid.
24. The food, food contact surfaces & food packaging material shall be protected from adulteration with lubricants, cleaning compounds, sanitizing agents, metal fragments & other physical & chemical contaminants. All the cleaning compounds & sanitizing agents used in the plant are identified & stored away from the food processing area. The design & construction of the equipment & machineries precludes adulteration of food with lubricants & other metal fragments.
25. The toxic chemical compounds like cleaning substances & sanitizing agents like hypochlorite solutions used in the plant are identified, labeled & stored in lockable cupboards.



### **7.2.2 Equipment:**

Food establishments shall use equipments that is designed, constructed, installed & maintained in a manner to prevent contamination of food. The manufacturer food operators shall have an adequate program in place to install, monitor, control all equipment & maintain records thereof.

- **Material Used:**

The equipment & utensils shall be made up of durable, non-corrosive & non-absorbent materials. Sufficient in weight & thickness to withstand repeated ware washing, finished to have a smooth easily cleanable surface & resistant to chipping, pitting, crazing, scratching & distortion. These metals shall be non toxic, withstand the environmental conditions & do not react with the concentrated / effective cleaning & sanitizing agents.

- **Design & Construction:**

The equipment & utensils shall be designed & constructed in a manner to facilitate easy flow of work & free of open seems, cracks, chips, inclusions, pits & similar imperfections. The design & construction shall prove the easy cleaning of equipment & there is no adulteration of food with lubricants, fuel, metal fragments & any other contaminants.

- **Equipment Installation:**

Equipments & utensils installed in a manner that prevents contamination of food. Adequate space shall be provided within & around the equipment easy accessible for cleaning, sanitizing, maintenance & inspection. Where required, equipment is properly vented.

- **Cleaning & Sanitation Procedures:**

Equipment food contact surfaces & utensils shall initially be scrubbed with suitable detergent, washed with potable water, sanitized with water containing prescribed level of chlorine & again washed with potable water. While scrubbing carefully brush the corners, dents & other normally inaccessible parts.

- **Maintenance & Operation:**

Equipment shall be maintained in a state of repair & condition that meets the requirements. Equipment components such as doors, seals, hinges & fasteners shall be kept intact, tight & adjusted in accordance with manufacturer's specifications. Cutting or piercing parts of can openers shall be kept sharp to minimize the creation of metal fragments that can contaminate food when the container is opened. Surfaces such as cutting blocks & boards that is subject to scratching & scorning shall be resurfaced if they can no longer be effectively cleaned & sanitized or discarded if they are not capable of being resurfaced.



- **Equipment Calibration:**

Equipment shall be maintained in a state of repair or condition that complies with the requirements. Food temperature measuring devices shall be calibrated in accordance with manufacturer's specifications as necessary to ensure their accuracy. Ambient air temperature, water pressure, water temperature measuring devices, scales, balances & weights shall be maintained accurately within the intended range of use. The frequency of calibration, the responsible person, the monitoring & verification procedures, the appropriate corrective actions & the record keeping are also specified. All the equipment temperature measuring devices shall be given unique number with calibration tag, which states the status, calibration date, next due date & calibration certificate number.

- **Preventive Maintenance:**

A written preventive maintenance program shall be in place that lists the all equipment & utensils together with the detailed preventive maintenance procedures. The detailed preventive maintenance program specifies the followings;

1. Equipment service history
2. Equipment service frequency
3. Frequency including replacement of parts
4. Responsible person
5. Method of Monitoring
6. Verification activities &
7. Records

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## Maintenance & General Cleaning



### 7.3. Maintenance & General Cleaning

[See Template](#)

#### Objective:

- Ensure adequate & appropriate maintenance & cleaning of the equipment & food establishment facilities.
- Monitor effectiveness of maintenance & sanitation programs implemented in the establishment.
- Prevent Pests infestations in the food Establishment (pest control).

#### The Maintenance programs shall be based on:

- Procedures.
- Schedule.
- Monitoring.
  - Records shall be maintained.
  - All documents templates shall be prepared by the Supervisor, checked & verified before implementation by the Chief Engineering in the food establishment.
- **Maintenance:**

Buildings, fixtures, & other physical facilities of the manufacturer food operations shall be maintained in a sanitary condition & shall be kept in repair sufficient to prevent food from becoming adulterated. Cleaning & sanitizing of utensils & equipment shall be constructed in a manner that protects against contamination of food, food contact surfaces, or food-packaging materials. The manufacturer food operation establishments shall have an adequate written sanitation program in place to monitor & control

#### The Cleaning programs shall be based on:

- Procedures.
- Schedule.
- Monitoring.
  - Records shall be maintained.
  - All documents shall be prepared by the supervisor, checked & verified before implementation by the Chief Steward in the food establishment.





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- **Cleaning:**

- **Cleaning, sanitizing & storage of Toxic chemical compounds:**

Cleaning compounds & sanitizing agents are to be safe & effective under the conditions of use. The cleaning substances & hypochlorite solutions shall be purchased under supplier's guarantee. Toxic cleaning compounds, sanitizing agents, & pesticide chemicals shall be identified, labeled & stored in a manner that protects against contamination of food, food contact surfaces & food packaging materials.

- **Condition & cleanliness of Food Contact Surfaces:**

The food contact surfaces like tables, utensils & machineries shall be made up of non-corrosive, non-absorbent, non-toxic metals & also withstands the action of food cleaning chemical compounds & sanitizing agents. The gloves & outer garments that contact food or food contact surfaces are made of an impermeable material, easily washable & maintain in a sanitary condition. The food contact surfaces shall be protected from adulteration with lubricants, cleaning compounds, sanitizing agents & other physical & chemical contaminants. The staff / workers shall wash their hands with liquid soap & sanitize their hands after each absence from their workstation. The food contact surfaces are initially scrubbed with detergent & washed with potable water, sanitized with prescribed level of hypochlorite solution & rinsed with potable water.

- **Pest Control:**

No animals or pests shall be allowed in area of manufacturer food operations, which may damage or cause considerable amount of food contamination. Effective measures shall be taken to exclude pests from the food preparation area & to protect against the contamination of food on the premises by pests. The use of insecticides & rodenticides is permitted only under precautions & restrictions that will protect against the contamination of food, food contact surfaces & food packaging materials.

- **Sanitary facilities & controls:**

The manufacturer food operation shall be equipped with adequate sanitary facilities & controls.

- a). **Water supply:**

Water that comes in contact with food or food contact surfaces shall be safe & of adequate sanitary quality. Running water at a suitable temperature & under pressure as needed, shall be provided in all areas where required for the preparation of food, cleaning of equipment & utensils & for employee sanitary facilities.

- b). **Plumbing:**

Plumbing shall be of adequate size to carry sufficient quantities of water to required locations throughout the manufacturer food establishment, convey sewage & liquid disposable waste from



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the manufacturer food establishment, provide adequate floor drainage in all areas where floors are subject to flooding-type cleaning or where normal operations release or discharge water or other liquid waste on the floor.

**c). Hand washing & sanitizing facilities:**

Hand washing & sanitizing facilities shall be adequate, convenient, & be furnished with running water at a suitable temperature & pressure. The hand washing & sanitizing facilities are well equipped with soap dispensers with liquid soap, disposable tissue paper/hand dryers, rubbish bins & sanitizer.

**d). Toilet facilities:**

The manufacturer food establishments shall provide its employees with adequate, readily accessible toilet facilities. Compliance with these requirements, accomplished by the followings:

1. Keeping the toilet facilities in good repair at all times.
2. Maintaining the facilities in a sanitary condition.
3. Providing self-closing doors.
4. Providing effective ventilation system to prevent airborne contamination.

**e). Sewage disposal:**

Adequate sewerage system shall be made to dispose off sewages.

**f). Rubbish & offal disposal:**

Rubbish & any offal shall be collected in bins with closed lid & kept in separate room. The collected wastes are disposed off every day. Accumulation of solid wastes & delaying of disposal may cause microbial contamination.

• **Cleaning Procedures & Methods:**

During cleaning & disinfections process the six basic principles shall be adopted in any kind of manufacturer operations:

**1. Pre-clean:**

The removal of gross debris from surfaces by brushing, vacuuming & scraping off loose deposits/debris or pre rinsing or pre-soaking.

**2. Main clean:**

The application of detergent solution to loose soil & bacterial film & hold them in solution or suspension.

**3. Intermediate rinse:**



Rinsing with potable water to remove loosened dirt & neutralization of cleaning agent residues.

#### **4. Disinfections:**

Destruction or reduction of microorganisms to a level that will not lead to harmful contamination.

#### **5. Final rinse:**

Removal of disinfectant residues & other debris.

#### **6. Drying:**

Removal of final rinse water.

In light- soil conditions, the pre-clean may be combined with main-clean & disinfections can take place in combination with the main-clean.

- **Monitoring Procedures:**

The effectiveness of cleaning & disinfections shall be verified through periodical microbiological sampling & testing.

1. To verify the cleanliness of the food contact surfaces the swab technique is used to collect samples & analyzed once in a month.
2. All food contact surfaces, including utensils, food contact surfaces of equipment & staff or worker's hand shall be verified through microbiological sampling testing.
3. When sampling of microbiological analysis of equipment & food contact surfaces shall be neutralized to eliminate any residual hypochlorite solution or disinfectant.

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## Pest Control



#### 7.4. Pest Control

[See Template](#)

##### Objective:

- To establish effective systems to control pests infestations in the food establishment.
- To protect the consumers of consuming food contaminated by rodent urine or droppings.
- Ensuring that foods are prepared free from any pests.
- Ensuring the received food items are free from pest presence.

No animals or pests (Flies, insects, rodents, birds) entry is allowed inside the manufacturer food operations. The presence of pests (insects) either dead or alive, rodents or their droppings or hair, bird feathers or droppings found in food results in loss of production or sale & the destruction of contaminated food. Rodents, birds, flies & cockroaches are all capable of transmitting food poisoning bacteria either directly or indirectly.

The manufacturer food operations shall have adequate procedures in place, to ensure that pests are controlled. Manufacturer food operations shall be designed & constructed in such a way that precludes pest's entry & maintained in good repair condition. All structural damage such as holes in walls, broken windows, loose tiles & damaged insulation shall be repaired immediately. Doors shall be close fitting & gaps where pipes & girders pass through walls should be adequately proofed. Drains made above & below ground shall be in good repair.

To reduce the risk of pest infestation:

1. The Area around the manufacturer food operations shall be litter free & cleaned & maintained according to the cleaning schedule.
2. There shall be defined demarcation between personnel & goods.
3. Stock rotation/FIFO rule shall be adopted & all stock is stored correctly to avoid any type of pest infestation.
4. Wastes shall be collected & disposed off at regular intervals.
5. Unused items, equipments & similar articles shall be removed from the manufacturer premises.
6. All incoming raw materials, including food, packaging, & equipment shall be thoroughly checked to ensure that they are free from pest infestation.

The manufacturer food operators shall be adhered to the following principles for their storage/display of goods:



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1. All areas of food storage/display shall be accessible for cleaning & inspection, which shall be carried out at frequent & regular intervals;
2. All goods shall be stored 15 cm away from the wall & the floor.
3. Adequate passage shall be left for inspections between stacks.
4. All areas shall be well ventilated & lighted;
5. The storage area shall be in good repair & effectively proofed against pest entry.
6. No goods are allowed to store on floors & the goods shall be stored on plastic or stainless steel pallets.
7. Goods that are infested or suspected shall be segregated immediately from those that are not.

The manufacturer food operations shall be provided with effective rodent, insect, vermin, & fly proofing arrangements. The pest's entry shall be systematically prevented in to the premises by using high control measures such as:

**1. Insect barriers:**

High velocity air-curtains shall be provided at all entry points.

**2. Fly proofing nets:**

These nets shall be provided at all exhaust fan openings.

**3. Electronic Fly Killers:**

EFK's shall be positioned at entry points that attract flies easily. The Positioning of the EFK shall be according the following requirements:

- Near to entrance points.
- Darkest area of the entrance points.
- Not shining to outside environment.
- Away from other light sources.
- Away from Food & Beverage preparation, handling, area.
- Away air extremes.
- Not more than 2.5 meters height off the floor.

**4. Rodent screens:**

All drainage line openings shall be provided with rodent screens.



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- **Pest Control Contract:**

The manufacturer food operations shall have a documented pest control strategy in place, either by their own or by professional pest control contractor.

- **Pest Control Contractor:**

1. The pest control contractor shall be of licensed company approved by the Pest control Section of Dubai Municipality – Health Department.
2. The contractor shall draw a written contract indicating services, methods & frequency of visits.
3. The contractor shall ensure all visits & actions are recorded.
4. The pest control contractor shall submit the detailed bait map to the manufacturer food establishment & shall be aware of the positions of bait boxes & traps & arranging for them to be checked regularly.
5. Monthly meeting shall be conducted between the Hygiene Manager & representative of Pest control contractor to discuss the services provided by them, improvements needs, if any & it shall be recorded in the "Pest Control File".
6. The pesticides used in the manufacturer food operations shall comply with all existing Federal & Dubai Municipality regulations.

The minimum frequency of visits of pest control contractor for the following types of premises is:

Food Markets/Bakeries/convenience stores	One visit in a month
Restaurants/Home food preparation/Food service units	One visit on fortnightly basis
Rural Meat Markets	One visit in a week
Temporary Food Establishments/Public events	One visit before the operations begins

The manufacturer food operators shall assign the responsibilities to the person in-charge & incorporate an effective monitoring strategy to ensure the pest control system works well. The effectiveness shall be verified through periodical reviews & audits.

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## Personal Requirement





## 7.5. Personal Requirements

[See Template](#)

### Objective:

- Ensure that those who come directly or indirectly into contact with food are not likely to contaminate food.
- Ensure the Food Handlers are qualified & certified on Food Basic Hygiene Practices in the food establishments.
- Ensure the health conditions of the Food Handlers.

### Annual & Regular Health Check-up, shall consist of:

- Procedures.
- Schedule.
- Monitoring.
  - Records shall be maintained.
  - All documents shall be prepared, checked & verified before implementation by the nurse if found or Personal Dept. in the food establishment.

### Dubai Municipality Health Cards, shall consist of:

- Procedures.
- Schedule.
- Monitoring.
  - Records shall be maintained.
  - All documents shall be prepared, checked & verified before implementation by the nurse if found or Personal Dept. in the food establishment.

### Weekly Internal Hygiene Check-ups, shall consist of:

- Procedures.
- Schedule.
- Monitoring.
  - Records shall be maintained.
  - All documents shall be prepared, checked & verified before implementation by the nurse if found or Personal Dept. in the food establishment.

### Training of Staff, shall consist of:

- Procedures.
- Schedule.
- Monitoring.
  - Records shall be maintained.
  - All documents shall be prepared, checked & verified before implementation by the Training Supervisor if found or Personal Dept. in the food establishment.



### **Sick leaves, Incident injuries records:**

- Procedures.
- Schedule.
- Monitoring.
  - Records shall be maintained.
  - All documents shall be prepared, checked & verified before implementation by the nurse if found or Personal Dept. in the food establishment.

- **Personnel Hygiene:**

All the employee of the manufacturer food operations shall have health cards issued by Dubai Municipality in order to ascertain their physical fitness for the job. High standards of Personal Hygiene are essential to reduce the risk of contamination / food-borne illness. The examination is carried out to ensure that no employees are working with a debilitating illness, which could aggravate by the stress of the work or in anyway spread the disease to their fellow workers.

- **Cleanliness:**

The manufacturer food operations workers shall have to follow the strict sanitary & hygiene practices. Personal cleanliness may be considered to include Good Hygiene Practices (GHPs) necessary to prevent the contamination of food.

The methods for maintaining cleanliness include, but are not limited to:

1. The employees shall maintain adequate personal cleanliness.
2. Wearing outer garments suitable to the operation in a manner that protects against the contamination of food, food contact surfaces or food packaging materials.
3. The employees shall wash their hands & sanitize thoroughly before entering manufacturer food operations, before starting work, after each absence from the workstation, after handling raw food, soiled or contaminated material & immediately after using the toilet.
4. The employees shall remove all unsecured jewelry & other objects that might fall into food, food contact surfaces & food packaging material.
5. The manufacturer food establishment shall provide locker facilities to the workers to store their cloths & keep valuables.
6. Eating food, Chewing gum, drinking beverages or using tobacco are not allowed inside the manufacturer food preparation areas.



- **Disease Control:**

The manufacturer food handlers shall have a valid Health Card issued by Dubai Municipality – Clinical & Medical Section prior to commencement of employment & made available in the establishment at any time for inspection.

1. The manufacturer food operations workers shall be free from any form of communicable diseases, open lesion (including boils, sores or infected wounds) or any other source of contamination.
2. The workers shall be advised to inform their illness to the concerned supervisor/management immediately & shall be made an obligation that all employees to notify incidence of typhoid, dysentery, diarrhea or any other communicable diseases in their homes.
3. The person in-charge shall carry out supervisory observations daily before operation begins.
4. The workers shall be medically examined & would need to produce certificate after each absence due to illness or any contagious disease.

- **Education & Training:**

The manufacturer food handlers & supervisors shall receive appropriate training in proper manufacturer food handling techniques & food protection principles & should be informed of the danger of poor personal hygiene & in-sanitary practices.

1. The manufacturer food operations manager shall arrange Basic Food Hygiene Training to all workers or food handlers.
2. Intermediate Food Hygiene Training for Supervisor or maintenance supervisors & Advance Food Hygiene Training to the Executives or Managers.
3. The competent technologists or managers shall conduct in-house periodical training programs. The staffs or workers who handle strong cleaning chemicals or other potentially hazardous chemicals shall be instructed in safe handling techniques.
4. Training programs shall be routinely reviewed & updated where & when necessary.
5. Systems shall be in place to ensure that manufacturer food operators remain aware of all procedures necessary to maintain the safety & suitability of food.



- **Supervision:**

The manufacturer food operators shall appoint a person in-charge for routine supervision & checks to ensure that procedures are being carried out effectively. Responsibility for assuring compliance by all personnel with all requirements of this part shall be clearly assigned to Person in-charge.

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## Approved Food & Beverage Suppliers



## 7.6. Approved Food & Beverage Suppliers

[See Template](#)

### Objective:

- Control the source of the food items to minimize the Hazard.
- Ensure the source of the raw materials, packaging materials, cleaning chemicals... etc.
- Ensure the hygienic standards of the supplier products & premises conditions.
- Ensure that the Supplier is implementing the Regulation requirements in regards of food hygiene & safety.
- Track the source of the Food Items in case of non-compliances.

- **Approving the supplier:**

The manufacturer food operators shall visit the supplier's establishment in order to verify the premises conditions, processing methods, storage facilities & distribution controls etc. The manufacturer food operators shall be ensured that the supplier is implementing the Dubai Municipality's regulation requirements in regards of food hygiene & safety. The manufacturer food establishment shall approve the supplier & contact information shall be documented. The supplier shall transport the food items in temperature-controlled vehicles/trucks according to the Dubai Municipality – Food Control Section Regulations & specifications.

- **Purchase Control:**

The food manufacturer shall try their best to purchase supplies & materials from approved suppliers who have registered HACCP programs or any convenient risk based management programs & if required provide HACCP-based certification to all their supplies & materials. If not, suppliers shall provide information on raw material origin & possible or probable level of pathogen contamination. (Chemical supplies shall be furnished with 'MATERIAL SAFETY DATA SHEETS'. Equipment suppliers shall provide simple cleaning & maintenance instructions.)

- **Supplier Certification:**

The suppliers shall provide information about their HACCP program details & HACCP based certification for all their supplies & materials. The manufacturer food operators shall verify the performance when their periodical visits to the supplier's premises. HACCP Program updated details are also sent to the manufacturer food operators to check/verify the improvements.

- **Ingredient Specifications:**

The ingredients shall be supplied with required specifications & health related labeling instructions.

1. Ingredients & other raw materials shall not contain levels of pathogenic microorganisms, which may produce food poisoning or other diseases in human.



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2. Ingredients shall be treated/pasteurized during manufacturing so that they no longer contain pathogenic microorganisms that could cause the product to be adulterated.
3. The supplier shall provide when requested certification that no ingredients or raw materials contain poisonous or deleterious substances & aflatoxin or other natural toxins.
4. Ingredients & raw materials shall not contain pests or pest infestations or other extraneous materials.

Compliance with the above shall be achieved by purchasing raw materials & other ingredients under a supplier's guarantee or certification, or by analyzing these materials & ingredients for aflatoxins, other natural toxins, & contamination.

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## Food Flow Requirements





### 7.7. Food Flow Requirements

[See Template](#)

All operations in the receiving, storage, processing, storage, & transportation shall be conducted in accordance with adequate sanitation principles. All precautions shall be taken to ensure that production procedures do not contribute contamination from any source. Microbiological, chemical & physical testing procedures shall be used where necessary to identify sanitation failures or possible food contamination. Overall sanitation of the manufacturer food establishment shall be under the supervision of one or more competent individuals assigned responsibility for this function. Foodstuffs, food ingredients, vegetables & fruits are purchased only from approved suppliers. Food items shall be transported in the thermo-controlled vehicles.

The requirement will be based on the company activity & the Food Item supplied flow through mixture of routes:

1. Receiving.
2. Storage.
3. Processing. (**All manufactures shall follow good manufacturing practices**)
4. Storage.
5. Transportation.



## Temperature Control



## 7.8. Temperature Control

[See Template](#)

### Objective:

- Prevent & control bacterial growth in different food items.
- Preventing food spoilage & unsafe food items.
- Ensure the proper preparing, cooking, reheating, serving temperature of food items.
- Ensure that the food items are out of the danger zone 5 – 65 °C.

Inadequate temperature or temperature abuse is one of the most common causes of food-borne illness or food spoilage. Adequate & properly functioning temperature control systems are required to maintain food in a condition that is fit for human consumption. Potentially hazardous foods shall be received, stored, prepared, displayed & distributed in a manner that prevents contamination. Potentially hazardous foods includes: raw & cooked meat or foods, dairy products, seafood, processed foods & vegetables, foods containing eggs, beans, nuts or other protein rich foods & other foods like sandwiches & rolls. By keeping food very cold at 5 °C or below (or) hot at 65 °C or above can prevent food poisoning bacteria or pathogen growth or toxin production. Ensure the above following temperature controls shall be adopted during food receiving, storing, preparing, display & service or transportation.

1. The manufacturer food operators shall ensure that the temperature of chilled food is 5 °C or colder when they receive, store, prepare, display, transport, etc.
2. Frozen food items shall be received, stored, displayed & transported at temperature not less than –18 °C or above.
3. The standard requires to ensure that the temperature of potentially hazardous food is 5 °C or below (or) 65 °C or above.
4. Ready to eat foods such as sandwiches shall be kept as short as possible during preparation at room temperature to reduce the risk of bacterial growth or contamination.
5. Probe thermometers shall be used to measure the core temperature of the food items.
6. Thermometers or thermo monitors used to measure the food temperatures shall be shall be calibrated at regular intervals.
7. Foods shall be transported in the thermo-controlled vehicles & the thermometers or thermo monitors shall be timely calibrated & records maintained thereof.
8. Compliance with the above routine supervision & checks shall be carried out effectively.

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## Product Recall



## 7.9. Product Recall

[See Template](#)

### Objective:

- Ensure that an identified food or Beverage item is removed from the market as efficiently, rapidly & completely as possible & can be put into operation at any time.

### Recall Program

The written recall program outlines the procedures the company would implement in the event of a recall. The program shall be tested periodically to validate its effectiveness.

### Recall System

Every Food & Beverage Supplier/distributor/manufacturer of a food product or Departments Store, etc shall maintains a system of control that permits a complete & rapid recall of any lot of food product. The written recall procedure includes the following:

1. Documentation pertaining to the product coding system.
2. All products shall be identified with a production date or barcode or code identifying each lot.
3. Sufficient coding of product is used & explained in the written recall program to permit positive identification & to facilitate an effective recall.
4. Finished product distribution records are maintained for a period of time that exceeds the shelf life of the product & is at least the length of time specified by respective commodity specific inspection manuals or by regulations.
5. Records shall be adequately designed & maintained to facilitate the location of product in the event of a recall. Records are available on request.
6. Health & Safety complaint file shall be maintained. Records documenting all Health & Safety related complaints & action taken shall be filed.
7. Responsible individuals who will be part of the recall team along with their respective business & home telephone numbers are listed. For each individual, an alternate is designated to act on his or her behalf in case of absence. The roles & responsibilities of every member of the recall team are clearly defined.



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8. 5. The step-by-step procedures to follow in the event of a recall are described. These procedures will include the extent & the depth of the recall (i.e. consumer, manufacturer or wholesaler level) according to the recall classification.
9. Means of notifying the affected customers in a manner appropriate to the type of hazard are defined. The channels of communication (fax, telephone, radio, letter, or other mean) to be used for trace back & recovery of all affected product shall be identified. Typical messages directed to manufactories, wholesalers or customers, according to the severity of the hazards, shall be included.
10. Control measures for the returned recalled foods shall be planned. This includes both returned product & product still in stock on the premises. The control measures & the disposal of the affected product are described according to the type of hazard involved.
11. Means of assessing the progress & efficacy of the recall shall be stated. A method of checking the effectiveness of the recall shall be defined.

### **Recall Initiation**

Any manufacturer who initiates a recall of a food shall notifies the Dubai Municipality – Food Control Section immediately with information including:

1. The reason for the recall;
2. Recalled Product Identification: Name, code marks or lot numbers, Establishment number (Local or Foreign), date of production, date of importation or exportation if applicable, etc;
3. The amount of recalled product involved, broken down as follows:
  - Total quantity of the recalled food originally in the company's possession,
  - Total quantity distributed at the time of the recall,
  - Total quantity remaining in the company's possession;
4. Areas of distribution of the recalled food: by areas, cities, provinces &, if exported, by country, along with manufactories' & wholesalers' names & addresses.

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## Sampling & Laboratory Analysis



## 7.10. Sampling & Laboratory Analysis

[See Template](#)

### Objective:

- Ensure that foods are fit for human consumption.
- Ensure the potability of the water used in all food preparation.
- Ensure the surfaces in food preparation areas are free from harmful microorganisms.
- Check effectiveness of the cleaning process & the cleanliness of food handlers.

Sampling & laboratory analysis is carried out for due diligence purposes, to ensure product safety, as a check of the hygiene during manufacturer operations or following a customer complaint. Effective sampling will reflect what went wrong in different food preparation & during handling. The manufacturer food operators shall adopt the following sampling & testing procedures & methods during their operations.

1. Each manufacturer food establishment shall have access to laboratory control of products handled or processed. Such control shall reject all food that is unfit for human consumption.
2. The manufacturer food operators shall establish testing procedures for the microbiological quality of food & food contact surfaces & also records maintained thereof.
3. Microbiological standards shall be based on GCC standards.
4. Random samples of the following shall be taken to assess the safety & quality of:
  - Food & Beverage items.
  - Water & Ice.
  - Swabs from food contact surfaces.
  - Swabs from food handler's hands.
5. Hazards involved in the manufacturing of food products: the Food & Beverage Suppliers & Manufacturer business operators shall design their own self-control checks or programs to safe & designated quality of food. Detailed inspection standards shall be written & available for review by regulatory authority.
6. Laboratory procedures used shall follow recognized or standard methods in order that the results may be readily interpreted.
7. Special consideration shall be given before & during mass or event manufacturer food operations.
8. Appropriate action plan shall be in place in case of any unfit samples.





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9. Microbiological samples shall be aseptically collected & transported at suitable temperature to the laboratory.
10. Laboratories checking for pathogenic microorganisms shall be well separated from food handling areas.
11. Records of results shall be kept & retained for a period that exceeds the shelf life of the product.
12. The test report shall give all information related to the sample, which shall carry sample description, identification numbers & batch numbers, method of sampling, method of analysis, results, standards/specifications, remarks, corrective action/action plan etc.

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## Internal & External Audits



## 7.12. Internal & External Audits

[See Template](#)

### Objective:

#### Internal Audits:

- Ensure that the Food Establishment is complying with & implementing Dubai Municipality – Food Control Section Regulations.
- Evaluate the Food Establishment hygienic conditions & facilities.
- Determine & control the hazards in regards of Food & Safety.
- Updating Dubai Municipality – Food Control Section with the Food Hygiene & Safety status of the Establishment.

#### External Audits:

- Check & control any violations of its provisions.
- Write the necessary report in this regard.
- Update Food Establishments with all new Regulations needed in order to provide safe food to the consumers.

**All HACCP programs shall be certified to comply with Dubai Municipality or any approved international standards.**

The audit is done to compare the actual practices with those followed/written procedures in the “Operational Manual”. They are systematic evaluations that include on-site observations & records review. By knowing the hazards involved in the production & manufacturing of food products, producers can design their own self-control programs that can be used by both management & employees to produce/sell safe, designated quality food products. Both internal & external authorities do audit. In internal audit, other than HACCP team members those qualified & trained in HACCP shall comprise the audit. External audit is conducted by Dubai Municipality – Food Control Section in order to evaluate the hygienic level of the Manufacturer Establishment & implementation of the “Good Food Hygiene & Safety Practices for Manufacturer Operations” Regulation 2004.

- **Internal Audit:**

1. Internal Audit shall be made by an unbiased person who is not responsible for performing the monitoring activities.
2. The audit shall cover all aspects related to Food Hygiene & Safety Practices.
3. Food safety, namely, procedures that minimize the potential for food borne illness, are of primary concern.



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4. Food protection, personnel responsibilities, food equipment, utensil use, & good safety procedures shall be observed.
  5. Structure & utilities shall be checked.
  6. Auditor shall verify the documents related daily self-inspection checklists, raw material receiving reports, product/process monitoring plan, manufacturer food operation food hazard control checklist & calibration results & certificates.
  7. Microbiological test reports shall be verified for their failures & necessary corrective actions.
  8. Detailed operation management & inspection standards shall be written & available for review by regulatory agencies.
  9. These standards shall be itemized in a detailed checklist.
  10. The audit shall be conducted monthly & detailed reports shall be made & kept available for future internal & external audits.
- **External Audit:**
    1. Dubai Municipality – Food Control Section, Food Health Officers/ Food Inspectors or third party approved by Dubai Municipality – Food Control Section, conducts this audit.
    2. The audit will cover structure & utilities of all food areas & manufacturer handlers' facilities in the manufacturer establishment.
    3. Auditors will verify all documents related to food safety; which includes manufacturer food protection, personnel responsibilities, manufacturer food equipment, utensil use, & good manufacturer food hygiene & safety procedures.
    4. Reports will be submitted to the Head of Food Control Section or Head of Safety Unit & the same will be verified & sent reports to concern manufacturer food establishment.
    5. Dubai Municipality – Food Control Section Officers & Inspectors are performing these duties & they have the right to enter any manufacturer food establishment & related facilities & also samples will be taken for testing in Dubai Municipality Laboratory.

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## Prerequisites Programs Review



### 7.13. Prerequisites Programs Review

[See Template](#)

Successful "Good Food Hygiene & Safety Practices for Manufacturer Operations"/Manufacturer HACCP recognition, registered establishments shall have in place effective & auditable written programs to monitor & control all the prerequisite sub-elements, maintain the appropriate records & demonstrate that they fully adhere to their written programs.

The written prerequisite program review shall consist of verifying company has a complete written program indicating how the company monitors, controls & verifies elements within the prerequisite programs. The first page of each prerequisite program shall be signed by the HACCP coordinator & all pages of the documented prerequisite programs shall be dated. The written prerequisite program shall answer basic question such as: what is done, how it is done, when is it done (frequency), who is responsible & what are the deviation & verification procedures & what records are maintained thereof.

1. Prerequisite programs are intended general outline of the most important regulations relating to Food Hygiene & Safety Practices.
2. Concerned personal in each manufacturer establishment shall review, monitor & check records in this regard.
3. Non-conformities of the prerequisite programs shall be classified as 'Minor' or 'Major' & send for Corrective Action Request (CAR).
4. Each CAR shall be serially numbered & followed up properly. Once the corrective action is made, CAR shall be closed.
5. Copy of the review or any other amendments shall be submitted to the Dubai Municipality - Food Control Section –"Good Food Hygiene & Safety Practices for Manufacturer Operations" sub unit.

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## HACCP Implementation for Food Manufacturers

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## Assemble HACCP Team





### 8.1 Assemble HACCP Team

[See Template](#)

To fully understand the process & be able to identify all likely hazards & CCPs, it is important that the HACCP team is made up of people from a wide range of disciplines.

HACCP Team <sup>(table shall be included)</sup>. Assembling a HACCP team is an important step in implementing a HACCP program:

- The chairman shall be able to lead the group & to direct the work of the team ensuring that the concept is properly applied. This person shall be familiar with the technique, be a good listener & allow all participants to contribute.
- The Team shall consist of individuals with different specialties. Several specialists may be involved in the team, each with an understanding of particular hazards & associated risks, e.g. a microbiologist, a chemist, a QC manager, a process engineer, etc. People, such as packaging specialists, raw material buyers, distribution staff or production staff who are involved with the process, & have working knowledge of it, may be brought into the team temporarily in order to provide relevant expertise.
- The team shall be knowledgeable about food safety hazards & HACCP principles.
- Where such expertise is not available on site, expert advice shall be obtained from other sources.
- The HACCP Team shall identify the members & shall write their name, designation, qualification, experience, training attended, & their tasks.
- Someone with a detailed knowledge of the production processes (a production specialist) is required to draw up the initial flow diagrams.
- The HACCP Team members shall assemble periodically to discuss the issues related to the HACCP system & develop or modify or verify or implement the HACCP system.
- All HACCP Team members shall undergo the HACCP training course.
- DM also encourages that the Universities, consulting groups, & published guidance can be used as additional assistance or reference.
- A technical secretary shall record the team's progress & results of the analysis.
- If any changes are made to composition or operational procedures, it may be necessary to alter the CCPs or change methods of monitoring.

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## Product Description



## 8.2. Product Description

[See Template](#)

Food & Beverage Suppliers are required to have a HACCP plan for each product they make. The HACCP team members shall first describe the product, once the team is formed.

A complete description of the product & the raw ingredients that go into the product are required with each HACCP plan.

Some of the product description information that should be listed for each product includes:

- Product's common name / scientific name.
- How the product will be used (Raw / Cooked / Ready-to-eat).
- Type of packaging material.
- Length of product's shelf life, & specific requirements; like storage temperature.
- Where product will be sold.
- Product's labeling instructions.
- Methods of distribution.
- Any special instructions for the product.

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## Identify Intended Use



### **8.3. Identify Intended Use**

[See Template](#)

The intended use shall be based on the expected uses of the product by the end user or consumer. In specific cases, vulnerable groups of the population, e.g., institutional feeding, may have to be considered.

The group of populations, consumers shall be identified & documented on the expected consumers for the products the manufacture shall consider two things:

1. Specific vulnerable group such as babies, children, pregnant women, patients, elderly people & diabetics.
2. Specific information on the label includes directions for use, special legislations (if any).

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## Product Flow



#### **8.4. Product Flow**

[See Template](#)

The first function of the team is to draw up a detailed flow diagram of the process. The expertise of the production specialist is important at this stage. Processes will differ in detail in different plants, and an accurate flow diagram depends on detailed knowledge of the process.

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## Construct Flow Diagram





### **8.5. Construct Flow Diagram**

[See Template](#)

The HACCP team shall construct the process flow diagram.

Each step within the specified area of operation shall be analyzed for the particular part of the operation under consideration to produce the flow diagram. When applying HACCP to a given operation, consideration shall be given to steps preceding & following the specified operation. This step shall provide an important visual tool that the HACCP team can use to complete the remaining steps of the HACCP plan development. Only a clear, simple, but complete, description of the process is needed.

It is important to include all the steps within the facility's control, including receiving & storage steps for all raw materials. The flow diagram shall be clear & complete enough so that people unfamiliar with the process can quickly comprehend the processing stages.

The food establishment shall have written the flow diagram, the flow diagram provides a schematic overview of the production process. In the flow diagram all the steps in the production will be described in sufficient details to provide adequate information on the control of the processes with regards to the food safety, all the conditions related to the process/operation.

The Lay Out, All the production lines, storage area, personnel facilities, the area where the possibilities of cross contaminations is occurred (raw materials, in-process, finished products shall be covered, the area covered by hygiene & pest control programs & by facilities for personnel).

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## On-site Verification of Flow Diagram



### **8.6. On-site Verification of Flow Diagram**

[See Template](#)

Upon completion of the process flow diagram (PFD), members of the team shall visit the manufacturing/processing area to compare what information is present on the PFD compared to what actually happens during production. This is known as "walking the line", a step by step practice to check that all information regarding materials, equipment, controls etc. have been taken into consideration by the team during the preparation of the process flow diagram. Aspects such as time of production, deviations caused by different shift patterns, startup, shut down, cleaning and especially night shifts should be monitored.

The accuracy of the process & flow diagrams & lay out shall plans be verified for compliance with actual situation.

The verifications shall be repeated annually or when there are any changes in the flow chart or the lay out in order that to timely identified & document the changes/modifications of the process & assess risks to the safety of the foodstuff. The verification of the establishment (if there is any changes) shall be documented.

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## List all Hazards



### 8.7. List all Hazards

[See Template](#)

(Principle 1)

The food establishment HACCP Team shall identify & evaluate all the potential hazard of all processes.

The identification & hazard analysis of the product shall include all the processes of the production that can have an adverse effect on the safety of the product by biological, chemical & physical hazards.

- **The analysis of hazard shall include the followings where applicable:**

1. Scope of the plan: i.e. what the HACCP plan will cover.
2. Writing & listing all the potential hazards associated with each step for each product.
3. The raw materials & the control of suppliers, & any special specifications.
4. The likely occurrence of the hazards & severity of their adverse health effects.
5. Product & process characteristics.
6. Layout of the facility or production line; plans/location of rooms, storage & separation of raw materials & end products.
7. Equipments, cleaning, disinfections & maintenance.
8. Packaging & storage facilities & packaging material.
9. Personnel & their relation to the food as hygiene & safety.

The HACCP Team shall assess the hazard analysis by putting the previous points in their accounts & missing a hazard might be considered as missing a CCP.

The food establishment HACCP Team shall perform hazard analysis for each identified hazard. The result of the analysis shall be documented, including the concepts & principles utilized for determining the risks. When conducting hazards analysis, where applicable, practical experiences, experimental data, literature etc., shall be taken in to account.

The HACCP team shall identify & document the control measures that are to be applied or implemented as a result of the hazard identification & risk analysis to eliminate or reduce the risks to an acceptable level. Control measures shall be documented.

It is important to understand that, for the purposes of HACCP, hazards only refer to the conditions or contaminants in food that can cause illness or injury to people. Many conditions are highly undesirable in food, such as the presence of insects, hair, filth, or spoilage. Economic fraud & violations of regulatory food standards are equally undesirable. All of these defects shall be controlled in manufacturer food processing / preparation.

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## Apply HACCP Decision Tree



### **8.8. Apply HACCP Decision Tree**

[See Template](#)

(Principle 2)

The Critical Control Points (CCPs) are the points in the process where the HACCP control activities will occur.

The identification of a CCP in the HACCP system is facilitated by the application of a decision tree.

Application of the decision tree determines whether the step is a CCP for the identified hazard.

All hazards that may be reasonably expected to occur, or be introduced at each step, shall be considered.

If a hazard has been identified at a step where control is necessary for safety, & no preventative measure exists at that step, or any other, then the product or process should be modified at that step, or at any earlier or later stage, to include a preventative measure.

Many points in the flow diagram not identified as CCPs may be considered control points. Only points at which food-safety hazards can be controlled are considered to be CCPs. A HACCP plan can lose focus if points are unnecessarily identified as CCPs.

CCPs identified for a product on one processing line may be different for the same product on another line. This is because the hazards & the best points for controlling them may change with differences in: plant layout, process flow, equipment, formulation, ingredient selection & sanitation & support programs.

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## Establish Critical Limits for each CCP





### **8.9. Establish Critical Limits for each CCP**

[See Template](#)

(Principle 3)

A Critical Limit represents the boundaries that are used to ensure that an operation produces safe products.

Each CCP shall have one or more Critical Limits for each food safety hazard. Critical Limits shall be specified for each preventative measure.

When the process deviates from the Critical Limit, a Corrective Action shall be taken to ensure food safety.

The rationale & reference material used to establish a Critical Limit should become part of the support documentation for the HACCP plan.

In many cases, the appropriate Critical Limit may not be readily available. Tests may need to be conducted or information gathered from sources such as scientific publications, regulatory guidelines, experts or experimental studies.

It shall be identified how the standard is established, it shall be (UAE standards, GCC standard, Codex Standards) & if it is not found in the previous standards then the establishment shall give scientific literature that support their Critical Limits.

The food establishment shall explain the effectiveness, & relevance to the CCP. Critical limits shall be specified & often used to include (temperature, moisture content, pH, sensory evaluations, etc...) Critical limits shall be validated for each CCP.

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## Establish a Monitoring System for Each CCP



**8.10. Establish a Monitoring System for Each CCP** [See Template](#) (Principle 4)

Monitoring is the scheduled measurement or observation of a CCP relative to its Critical Limits.

Monitoring is important to ensure that the Critical Limits are constantly met. Further, monitoring shall ideally provide this information in time for corrective action to be taken to regain control of the process before there is a need to reject the product.

A designated person with knowledge & authority to carry out corrective actions when indicated shall evaluate data derived from monitoring.

If monitoring is not continuous, then the amount or frequency of monitoring shall be sufficient to guarantee the CCP is in control.

**Monitoring procedures shall identify:**

- What will be monitored
- How the critical limits & control measures will be monitored
- How frequently monitoring will be performed
- Who will perform the monitoring

Most monitoring procedures for CCPs shall need to be done rapidly because they relate to on-line processes & there will not be time for lengthy analytical testing.

Physical & chemical measurements are often preferred to microbiological testing because they may be done rapidly & can often indicate the microbiological control of the product.

All records & documents associated with monitoring CCPs shall be signed by the person(s) doing the monitoring & by a responsible reviewing official(s) of the company.

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## Establish Corrective Actions



### 8.11. Establish Corrective Actions

[See Template](#)

(Principle 5)

When Critical Limits are violated at a CCP, the predetermined, documented Corrective Actions shall be instituted.

Specific Corrective Actions shall be developed for each CCP in the HACCP system in order to deal with deviations when they occur.

The actions shall ensure that the CCP has been brought under control. Actions taken shall also include proper disposition of the affected product. Deviation & product disposition procedures shall be documented in the HACCP record keeping.

#### **Corrective Action options include:**

- Isolating & holding product for safety evaluation.
- Diverting the affected product or ingredients to another line where deviation would not be considered critical.
- Reprocessing
- Destroying product.

Corrective Action shall also occur when monitoring results indicate a trend towards loss of control at a CCP. Action shall be taken to bring the process back into control before the deviation leads to a safety hazard. Also, shall include investigation of reasons behind the deviation & preventative actions.

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## Establish Verification Procedure



### 8.12. Establish Verification Procedure

[See Template](#)

(Principle 6)

One of the more complex HACCP principles is verification. The proper development & implementation of the verification principle is fundamental to the successful execution of the HACCP plan.

The purpose of the HACCP plan is to prevent food-safety hazards & the purpose of verification is to provide a level of confidence that the plan is based on solid scientific principles is adequate to control the hazards associated with the product & process & is being followed.

- **The elements of verification shall include:**

- **HACCP plan Validation.**

- **CCP Verification Activities:**

- Calibration of monitoring devices.
- Targeted sampling & testing.
- CCP record review.

- **HACCP system Verification:**

- Audits (Internal & External).
- Microbiological end-product testing.

- **Regulatory Authority (Dubai Municipality) Verification:**

- Review of the HACCP plan & any modification.
- Review of CCP monitoring records.
- Review of corrective action records.
- Review of the verification records.
- Visual inspections of operations to determine if the HACCP plan is followed & records are properly maintained.
- Random sample collection & analysis.
- Audits review.

The results of the verification shall systematically be evaluated; the verification & the evaluation of the HACCP system could initiate changes & modifications of the processes, & they're in for the HACCP plan & documentations that shall be verified.

At the end verification can be used to determine that the HACCP system is working correctly.

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## Establish Record Keeping & Documentation





### 8.13. Establish Record Keeping & Documentation

[See Template](#)

(Principle 7)

Efficient & accurate record keeping is essential part of a successful HACCP program. Four kinds of records are identified as a part of HACCP system & according to the size of the establishment.

- **HACCP plan & support documents, this includes:**

- Written Hazard analysis worksheet, plan form, & the information or data used to develop HACCP plan.
- A list of HACCP team & their responsibilities
- Prerequisite programs.

- **Monitoring Records, this contains the following information:**

- Form title.
- Firm name & location.
- Time & date.
- Product identification.
- Actual observation or measurement.
- Critical limits.
- Operators' signature & date.
- Reviewers' signature & date.
- Verifiers' signature & date.

- **Corrective Action Records:**

- Documented procedures followed, when a deviation occurs.

- **Verification Records:**

- Modification to the HACCP plan.
- Internal Audit records.
- Verification of the accuracy & calibration of all monitoring equipment.
- Results of microbiological tests.
- Results of in-house, on-site inspections.
- Results of equipment evaluation.

Monitoring records for CCPs & critical limit deviations shall be reviewed in a timely manner by a concerned Person in-charge. All records shall be signed or initialed & dated by the reviewer.

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## Supporting Templates



## Prerequisite Programs Templates



## Management Policy



## Management Policy

It is the policy of this establishment to operate so that there is complete assurance that both customers & employees will receive the optimum nourishment, & will never be made ill from our food, or be injured by a foreign object in our food.

In order to achieve this operating standard, we will be guided by the Dubai Municipality – Food Control Section Guidelines, our local & city rules, & this Good Food Hygiene & Safety Practices for Manufacturer Operations <sup>2005</sup> (Department Stores, & Food & Beverage Suppliers) Hazard Analysis Critical Control-Based, Food Safety Policy, Procedures, & Standards Manual.

Dubai Model

<Owner name & signature>

<Date>

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## Premises & Equipment



## Premises & Equipment

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## Maintenance & General Cleaning





**Procedures**

(Note that separate form for Malignance only & separate form for General Cleaning)

Area: (name)      Section:(e.g., meat preparation)      Shift:(timing or shift name (e.g., morning))

(Where ↓)		(How ↓)	(When ↓)
Area	Equipment/others	Method	Frequency & time
1. e.g., Kitchen	1. Floor	According to manufacture requirements	Daily/evening
	2.		
	3.		
	4.		
2. Other kitchens			
3.	<b>D M M o d e l</b>		
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			

Prepared by: \_Name & Designation\_.

Checked by: \_Name & Designation\_.

Approved by: \_Name & Designation\_.



**Schedule**

(Note that separate form for Malignance only & separate form for General Cleaning)

Area: (name)      Section:(e.g., meat preparation)      Shift:(timing or shift name (e.g., morning))

(Where ↓)	(How ↓)	(Who ↓)	(When ↓)
Area	Equipment/others	Method	Name & Designation
1. e.g., Main Kitchen	1. Freezer	According to the procedure	John Daniel
	2.		
	3.		
	4.		
2. Other kitchens			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			

D M W M O O D e i

Prepared by: \_Name & Designation\_.

Checked by: \_Name & Designation\_.

Approved by: \_Name & Designation\_.



**Monitoring Schedule**

(Note that separate form for Malignance only & separate form for General Cleaning)

Area: (name)      Section:(e.g., meat preparation)      Shift:(timing or shift name (e.g., morning))

(where ↓)		(how ↓)		(who ↓)	(when ↓)	
Area	Equipment/others	Job Done		Corrective Action	Name & Designation	Frequency & time
		Yes	No			
1. e.g., Main Kitchen	1. Floor				John Daniel	Daily/evening
	2.					
	3.					
	4.					
2. other kitchens						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						

Signature: \_ & Designation \_.



### Approved Chemicals List

Date: / /2005

(who ↓)	(Who ↓)	
Supplier Name	Materials supplied	Description
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

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## Pest Control



## Pest Control

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## Personal Requirements



### Weekly Internal Hygiene Check-up

Date: / /2005

Area: (name)

Personal Hygiene		Checks											
Name	Hair		Shoe		Nail	Cut/ Wounds	Cleanness of uniform		Jewelry Watch / ring / earring		Sick		Corrective Action
	Long	Not Covered	Yes	No	Long/ Dirty	Yes	Clean	Dirty	Yes	No	Yes	No	
Area													
1.													
2.													
3.													
4.													
5.													
6.													
7.													
Area Name of areas in case of more													
1.													
2.													
3.													
4.													
5.													
6.													
7.													

Signature: \_& Designation\_.





**Trained Personal**

Area: (name)

Section:(e.g., meat preparation)

Shift:(timing or shift name (e.g., morning))

(where ↓)	(Who ↓)	(What ↓)
Area	Name & Designation	Type of training
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		

D M M o d e l

Signature of trainer: \_Name\_ & Designation\_.

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## Approved Food & Beverage Suppliers



### Supplier Approval Requirement Letter

To:

Supplier Name: <contact details>

Dear Sir or madam,

Since you are one of our current/potential suppliers, we would like to know about your Food Hygiene & Safety program. If you have a HACCP program, we consider this to be part of your Food Hygiene & Safety program. It is very costly for us to receive a product or service from a supplier that does not meet our expectations. Please answer the following questions & provide the material as appropriate concerning your Food Hygiene & Safety plan & program to achieve each requirement. When we will visit you, we will expect that you be able to demonstrate that you do each item effectively & are continually improving.

1. Who developed your HACCP program?
  - Who validated your program as effective?
  - Who are the members of your HACCP Team?
  - How often do they meet?
  - Describe your verification program.
2. Have you taught each employee who works with food the hazards associated with the task he/she performs & how to perform the necessary controls?
3. What do you require of your suppliers in terms of ingredient HACCP controls?
4. Please tell us about your recall & emergency action program.
5. Describe the responsibilities of your Food Hygiene & Safety Control Team/Officer/Department.
6. What ingredient testing do you do?
7. What product testing do you do?
8. What are the critical limits, if you have them, for the biological, chemical, & physical hazards that are reasonably likely to be in the products you provide to use?

In addition to the above, please provide specifications to us for the products we purchase from you.

We will appreciate your prompt response.

Sincerely,

<your name & signature>



### Approved Food & Beverage Suppliers List

Date: / /2005

(who ↓)	(Who ↓)		
Supplier Name	Materials supplied	HACCP: Yes / No	Contact information
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

Signature: \_Name\_ & Designation\_.

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## Food Flow Requirements



### Monthly Food & Beverage Supplies Receiving Log

Date: / /2005

Date	Time	Supplier	Food Item	Appearance	Temp. °C	Exp. Date	Remarks
<h1>D M M o d e l</h1>							

Signature: \_Name\_ & Designation\_.

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## Temperature Control



### Monthly Chiller Temperature Check list

Date: / /2005

Area: (name)

Chiller No.:(1,2,3,etc.)

Day	Chiller Temperature 0-5 °C				Signature	Remarks
	8.00	12.00	16.00	20.00		
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						

Checked by: \_Name\_ & Designation\_.





### Monthly Freezer Temperature Check list

Date: / /2005

Area: (name)

Freezer No.:(1,2,3,etc.)

Day	Freezer Temperature -18 °C or below				Signature	Remarks
	8.00	12.00	16.00	20.00		
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						

Checked by: \_Name\_ & Designation\_.

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## Product Recall



### Product Recall

#### - Letter Template:

**Date:**

**From:** <details>

<details>

**To:**

**Assistant Director of Public Health Department & Head of Food Control Section,**

**Food Control Section,  
Public Health Dept.,  
Dubai Municipality**

PO Box: 67, Dubai – UAE

Tel: 04 – 2064201/2064220

Fax: 04 – 2231905/2064264

E: foodcontrol@dm.gov.ae

E: abdulrahmanmm@dm.gov.ae

**Dear Sir,**

We would like to inform you that we are currently recalling <name of the product> from Dubai market.

The recall was based on the following:

1. <The reason/s for the recall>

- The Recalled Product Identification:

<Name>,

<Code marks or lot numbers>,

<Establishment number (Local or Foreign)>,

<Date of production, date of importation or exportation if applicable, etc>

- The amount of recalled product involved, broken down as follows:

- <Total quantity of the recalled food originally in the company's possession>

- <Total quantity distributed at the time of the recall>

- <Total quantity remaining in the company's possession>

DM Model



- Areas of distribution of the recalled food:

<By areas> ,

<Cities> ,

<Provinces &, if exported> ,

<By country> ,

<Along with manufacturerers' & wholesalers' names & addresses>

**Thank you for your kind cooperation,**

**Yours truly,**

**<Person & food establishments name with signature>**

DM Model

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## Sampling & Laboratory Analysis



**Food & Beverage Sampling Procedures (food, water, swabs, etc)**

Area: (name)

Section:(e.g., meat preparation)

Shift:(timing or shift name (e.g., morning))

(Where ↓)		(How ↓)		(When ↓)
Area	Equipment/others	Method		Frequency & time
1. e.g., Main Kitchen	1. Floor	Swabs		Monthly /evening
	2.			
	3.			
	4.			
2. Other kitchens				
3.	<b>D M M O o d e i</b>			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Prepared by: \_Name & Designation\_.

Checked by: \_Name & Designation\_.

Approved by: \_Name & Designation\_.



**Food & Beverage Sampling Schedule (food, water, swabs, etc)**

Date: / / Area: (name) Section:(e.g., meat preparation) Shift:(timing or shift name (e.g., morning))

(Where ↓)		(How ↓)	(Who ↓)	(When ↓)
Area	Equipment/others	Method	Name & Designation	Frequency & time
1. e.g., Main Kitchen	1. Floor	Swabs	John Daniel	Monthly/evening
	2.			
	3.			
	4.			
2. Other kitchens	5.			
3.	<div style="font-size: 4em; font-weight: bold; letter-spacing: 0.5em;">D M M o d e i</div>			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Prepared by: \_Name & Designation\_.

Checked by: \_Name & Designation\_.

Approved by: \_Name & Designation\_.



**Food & Beverage Sampling Monitoring Schedule (food, water, swabs, etc)**

Date: / / Area: (name) Section:(e.g., meat preparation) Shift:(timing or shift name (e.g., morning))

(where ↓)		(what ↓)		(how ↓)	(who ↓)	(when ↓)		
Area	Equipment/others	Job Done		Comments		Corrective Action	Name & Designation	Frequency & time
		Yes	No	Fit	Unfit			
1. e.g., Main Kitchen	1. Floor						John Daniel	Monthly/evening
	2.							
	3.							
	4.							
2. other kitchens								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								

Signature: \_Name\_ & Designation\_.

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## Internal & External Audits



### Internal & External Audits Monthly Log

Date: / /2005

(who ↓)	(When ↓)		(What ↓)
Name	Date & Time	Audit Type	Audit results
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			

D M M o d e l

Signature: \_& Designation\_.

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## Prerequisites Programs Review



## Prerequisites Programs Review

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## HACCP Implementation Templates



## Assemble HACCP Team



### HACCP Team

Date: / /2005

(Who ↓)	(Who ↓)		(What ↓)
Name	Designation	Qualification	Responsibilities
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			

D M M o d e l

Signature of the Team Leader:   Name   & Designation   .

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## Product Description





### Product Description Template

Product Name:	- Brand name of the Product
Composition:	- Ingredients
Physical & Chemical Structure:	- Properties or characteristics of the product that are important in determining its safety. - Physical characteristics e.g.: particle size. - Chemical characteristics e.g.: pH, $a_w$
Preservation Methods:	- Methods used to extend the shelf life of the food. e.g.: heat treatment, freezing, brining, etc.
Primary packaging:	- The type of packaging the product direct contact with. e.g.: drums, silos, cartons, PE films, etc. - The packaging conditions, e.g.: modified CO <sub>2</sub> atmosphere, Vacuum or N <sub>2</sub> packed.
Secondary Packaging:	- The type of packaging used to transport the product. e.g.: knitted plastic bags, plastic crates, shrink wrapped pallets.
Storage conditions:	- How the product shall be stored in order minimize the severity & risk of hazards. e.g.: storage temperature, humidity.
Distribution Method:	- Any special requirements to be applied during distribution in order to minimize the severity & risk of hazards. e.g.: refrigeration temperature, shall be transported in dry carrier & food shall be covered. - Means of transportation used. e.g.: ship, trucks, tankers, etc.
Shelf life:	- List the anticipated shelf life of the product under normal marketing conditions in the applicable storage conditions.
Labeling:	- Shall comply with Dubai Municipality – Food Control Section Labeling requirements that apply to food for manufacturer & non-manufacturer sale.
Intend use	- Direction & instructions for end user. e.g.: ready for processing, refrigerate after opening, etc.

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## Identify Intended Use



### **Identify Intended Use**

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## Construct Flow Diagram



### Construct Flow Diagram

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## On-site Verification of Flow Diagram



### On-site Verification of Flow Diagram

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## List all Hazards





### Hazard Analysis Sheet

Date:

1	2	3	4	5	6
Ingredient/ Processing Step	Identify potential hazards introduced, controlled or enhanced at this step?	Are any potential food-safety hazards significant? Yes/No	Justify your decisions for column 3	What Preventive measures can be applied to prevent the significant hazards?	Is this step CCP/CP?

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## Apply HACCP Decision Tree



### Apply HACCP Decision Tree

Date:

#### Apply HACCP Decision Tree to each step with identified hazards (Answer the questions in sequence)

Q1. Is there a hazard at this process step? What is it?

Yes



No



Not a CCP

Q2. Do preventative Measures exist for the identified hazards?

Yes



No



Modify step process or product?

Yes



Q3. Is the step specifically designed to eliminate or reduce the likely occurrence of the hazard to an acceptable level?

Yes



No



Is control necessary at this step for safety?

Yes



Not a CCP

Q4. Could the contamination occur at or increase to an acceptable levels?

Yes



No

Not a CCP

Q5. Will a subsequent step or action eliminate or reduce the hazards to an acceptable level?

Yes

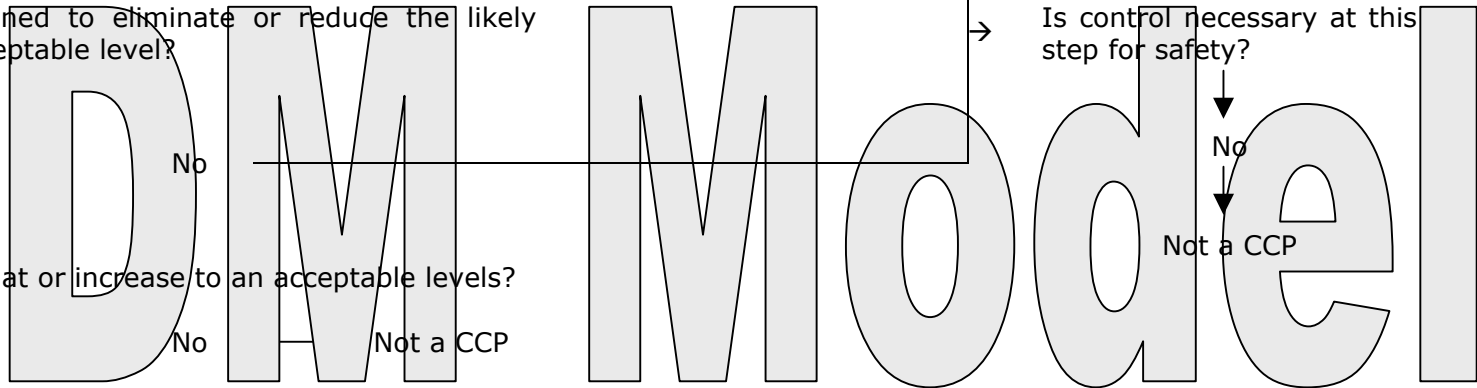


Not a CCP

No



CCP



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## Establish Critical Limits



### HACCP Plan

Date:

1	2	3	4	5	6	7	8	9	10
CCP	Hazard	Critical Limits for each Preventive measure	Monitoring				Corrective Actions	Verification	Records
			What	How	Frequency	Who			

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## Establish a Monitoring System



## Establish a Monitoring System

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## Establish Corrective Actions





## Establish Corrective Actions

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## Establish Verification Procedure



## Establish Verification Procedure

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## Establish Record Keeping & Documentation



## **Establish Record Keeping & Documentation**

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## Regulator Recommendation



## **10. Regulator Recommendation**

- 1) Every Food & Beverage Suppliers & Manufacturer business operators shall have & implement a written HACCP Program.**
- 2) A HACCP plan shall be specific to each food manufacturer operation location & each product: raw, processed or handled within the establishment, or pre-packed food items.**
- 3) The HACCP plan shall:**
  - a) List the food safety hazards.
  - b) List the CCPs.
  - c) List the critical limits.
  - d) List the monitoring procedures.
  - e) List predetermined corrective-action plans.
  - f) List the verification measures.
  - g) Provide for a system of Monitoring records.
- 4) The HACCP plan shall be signed & dated by:**
  - a) The most responsible individual at the manufacturer food facility.
  - b) This signature shall signify that the HACCP plan has been accepted for implementation by the firm.
- 5) Corrective action:**
  - a) Whenever a deviation from a critical limit occurs, a manufacturer food operator shall take corrective action.
- 6) Every manufacturer food operator shall verify:**
  - a) That the HACCP plan is adequate to control the food-safety hazards.
  - b) That the HACCP plan is implemented effectively.
- 7) Records required by the regulation:**
  - a) Prerequisite Programs Manual.
  - b) HACCP Manual.
- 8) The HACCP – trained individual shall prepare:**
  - a) Prerequisite Programs Manual.
  - b) HACCP Manual.

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The End

## HACCP Guidelines for Food Manufacturing Premises<sup>2005</sup>

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