

State of Kuwait
Ministry of Health
Infection Control Directorate

Infection Control Guidelines For Catering Services

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1. Introduction

Hospitals and other health care facilities represent a special case of food service operation. The need for adequate food hygiene facilities is of paramount importance, since the consequences of an outbreak of food poisoning in a health care facility can be life threatening for patients. Therefore, particular care must be taken to minimize the risk of infection or intoxication through the food service system. (**Appendix 1**)

Preparation of food requires attention to raw materials, personal hygiene, kitchen hygiene, and especially time/temperature control of all food-handling operations including cooking, cooling, and distribution. Assuring safe food requires management and control of microbiological, chemical and physical hazards.

It is recommended that food service departments in health care establishments take the HACCP (Hazards Analysis Critical Control Point) approach to the food safety programme.

2. Design of Dietary Facilities

2.1. General

Patient food preparation areas shall be located adjacent to delivery, interior transportation, and storage facilities.

2.2. Functional Elements

If on-site conventional food service preparation is used, the following shall be provided, in size and number appropriate for the functional program:

A. Receiving/control stations. An area for receiving and control of incoming dietary supplies shall be provided.

- This area shall be separated from the general receiving area
- It shall contain a control station and a breakout area for loading and weighing supplies.

B. Hand-washing stations. Hands-free operable hand-washing stations shall be conveniently accessible at locations throughout the unit.

C. Food preparation work spaces

- Work spaces shall be provided for food preparation, cooking, and baking. These areas shall be as close as possible to the user (i.e., tray assembly and dining).
- Additional spaces shall be provided for thawing and portioning.

D. Assembly and distribution. A patient tray assembly area shall be close to the food preparation and distribution areas.

E. Food service carts

- A cart distribution system shall be provided, with spaces for storage, loading, distribution, receiving, and sanitizing of the food service carts.

- The cart traffic shall be designed to eliminate any danger of cross-circulation between outgoing food carts and incoming, soiled carts, and the cleaning and sanitizing process. Cart circulation shall not be through food processing areas.

F. Dining area.

Dining space(s) shall be provided for ambulatory patients and staff. These spaces shall be separate from the food preparation and distribution areas.

G. Area for receiving, scraping, and sorting soiled tableware. This shall be adjacent to ware-washing and separate from food preparation areas.

H. Ware-washing facilities

- These shall be designed to prevent contamination of clean wares with soiled wares through cross-traffic.
- The clean wares shall be transferred for storage or use in the dining area without having to pass through food preparation areas.

I. Pot-washing facilities

- These shall include multi-compartmented sinks of adequate size for the intended use, convenient to the using service.
- Supplemental heat for hot water to clean pots and pans shall be by booster heater, steam jet, or other appropriate means.
- Mobile carts or other provisions shall be made for drying and storing pots and pans.

J. Facilities for commissary or contract services from other areas

- Provision shall be made to protect food delivered to ensure freshness, retain hot and cold, and avoid contamination. If delivery is from outside sources, protection against weather shall be provided.
- Provision shall be made for thorough cleaning and sanitizing of equipment to avoid mixing soiled and clean equipment .

K. Equipment and supply storage area

- General. Storage spaces shall be convenient to the receiving area and accessible without traveling through the food preparation area.
- Food storage
 - Storage spaces for bulk, refrigerated, and frozen foods shall be provided. Provision shall be made for storage of enough supplies.
 - Food storage components shall be grouped for convenient access to the receiving and food preparation areas.
 - All food shall be stored clear of the floor.Lowest shelf shall be not less than 12 inches (30.48) centimeters above the floor or shall be closed in and sealed tight for ease of cleaning.
- Additional storage rooms. These shall be provided as necessary for the storage of cooking wares, extra trays, flatware, plastic and paper products, and portable equipment.
- Cleaning supplies storage. A separate storage room shall be provided for the storage of nonfood items such as cleaning supplies that might contaminate edibles.

L. Housekeeping rooms

- These shall be provided for the exclusive use of the dietary department and shall contain a floor sink and space for mops, pails, and supplies.
- Where hot water or steam is used for general cleaning, additional space within the room shall be provided for the storage of hoses and nozzles.

M. Support Areas for Staff (Toilets, lockers, and lounges).

Toilets, lockers and lounge facilities shall be convenient to the dietary department. These facilities shall be permitted to be shared with adjacent services provided they are adequately sized.

N. Finishes

Finishing in the dietary facility shall be selected to ensure cleanability and the maintenance of sanitary conditions as follows:

- Floor materials shall be easily cleanable and appropriately wear-resistant.
- Floors in areas used for food preparation or food assembly shall be water-resistant.
- Floor surfaces, including tile joints, shall be resistant to food acids.
- Floor materials shall not be physically affected by germicidal cleaning solutions.
- Floors shall have a non-slip surface
- The floors and wall bases shall be homogenous, but may have tightly sealed joints
- Wall finishes shall be washable. In vicinity of plumbing fixtures, wall finishes shall be smooth and water-resistant.
- Wall construction, finish, and trim, including the joints between the walls and the floors, shall be free of insect- and rodent-harboring spaces.
- Floors and walls penetrated by pipes, ducts, and conduits shall be tightly sealed to minimize entry of rodents and insects.
- Ceilings shall be cleanable with routine housekeeping equipment.

O. Ventilation:

- In food preparation center at least 10 air changes /hour is required.
- Ware washing area should have at least 10 air changes per hour (ACH/h) with negative pressure and all air is directly exhausted outdoors.

3. Food and Catering Services

3.1 Purchasing of food

All food must be purchased from reputable suppliers. These suppliers will be on an approved list as a result of a satisfactory inspection of their premises and processes to ensure that the food and/or ingredients are safe and of good quality.

3.2 Delivery and receipt of food

- All food must be delivered in clean temperature controlled vehicles suitable for the load.
- The timing of deliveries should be such that staffs are able to receive, check and store the food.
- Food should be checked to ascertain:
 - use by dates
 - that packaging is intact and clean
 - food is as ordered
 - the temperature is within a given range
 - adequate and suitable labeling

Frozen foods : below -18°C **Appendix 2**

Chilled foods : between 0°C and 5°C

- Delivery temperatures of chilled and frozen items must then be recorded on the delivery temperature form.
- All food which does not meet the acceptable criteria must be rejected and immediately returned to the supplier

3.3. Food storage

3.3.1 General

- Food storage must be of adequate capacity to hold anticipated maximum stocks.
- Storage for temperature controlled goods must have sufficient refrigeration equipment to maintain temperatures.
- Stock levels must not exceed storage capacity at any time.
- All refrigerated stock for cook chill meals must have 24-hour automatic temperature recording devices and high temperature alarms. Breakdowns must be reported as a matter of urgency.
- Separate storage areas need to be provided for:
 - frozen raw meat
 - frozen raw fish
 - milk
 - fruits & fresh vegetables
 - chilled cooked meat
 - frozen vegetables
 - bread
 - canned and dehydrated foods
- Dry provisions are to be stored securely in well ventilated, light and rodent proof conditions. Stocks will be stored clear of floor level and in such a manner to facilitate easy cleaning, inspection and stock rotation.

-All dairy products are to be stored securely under refrigerated conditions at a temperature of between 1°C and 5°C .

-Fresh fruit, prepared and fresh vegetables including salad items are to be stored securely in the vegetable refrigerator at a temperature of between $+4^{\circ}\text{C}$ and $+6^{\circ}\text{C}$. The exception is bananas, which must not be refrigerated. Strict rotation of stock must be maintained for all issues of salads, fruit, potatoes and vegetables.

-Bread must be stored in a secure store, at ambient temperature, or in a provisions refrigerator. Minimum stock levels to be held overnight and strict rotation of stock must be maintained.

-All fresh meat and raw meat products are to be stored securely in suitable clean containers and held refrigerated between 0°C and 3°C in the fresh meat refrigerator. Products should be stacked to ensure there is sufficient airflow around the product and that the evaporator is not obstructed. All spillages of blood must be cleaned up immediately. The only chemical disinfectant is allowed to be used in kitchens is chlorine based agents e.g. Clorox.

-Frozen meat, which is to be defrosted, must be taken out in sufficient time and stored in the meat refrigerator on a defrosting tray until defrosted.

-All frozen products are to be stored securely in suitable containers and held frozen at a minimum of -18°C . The product should be stacked to ensure there is sufficient airflow around the product and the evaporator is not obstructed. Where possible frozen fish and fish products should be stored in separate deep freeze accommodation or at least away from other frozen products to ensure there is not transfer of flavour from one food to another. Stock rotation must be maintained for all items. Part opened packs must be labelled with use by date.

3.3.2 Housekeeping of the storage area

- All store areas are to be kept clean and tidy and waste must not be allowed to accumulate .
- All spillages must be swept up immediately .
- Ambient store and refrigerator floors must be washed daily and scrubbed weekly
- Freezer floors must be swept and scrubbed as part of the defrost.
- All fridge and freezer stock must be kept neat and tidy and items kept together so as to facilitate stock counting .
- Refrigerator and freezer doors and door seals must be washed at least weekly .
- Freezers must be defrosted at least every 3 months .

- All cleaning materials must be stored away from food and packed in such a way that they cannot contaminate the food.

3.3.3 Cook chill meals

- Holding refrigerators are set to maintain food at a temperature of between 0°C and 3°C. Checks should be made regularly to ensure that this is the case.
- During the defrost cycles or periods of frequent door opening the temperature may temporarily rise to 5°C. This is acceptable providing this is for a temporary period and the food is kept in store.
- If the temperature rises above 5°C but less than 10°C the food should be consumed well within the next 12 hours.
- If the food is not consumed within 12 hours or the food temperature rises above 10°C we must get rid of the food immediately.
- Faulty food storage refrigerators should be notified to the appropriate maintenance department immediately.
- The cleaning of food storage equipment should take place regularly on a weekly basis.

3.4-Food preparation

3.4.1 General

- Staff involved in food preparation is required to wear appropriate clothing, worn only for food preparation and service. Items worn must protect food from contamination and includes mask, headwear, gloves, apron and coats.
- Preparation of raw materials should take place in areas physically separated from the cooking and post cooking areas.
- Particular care must be taken with raw meat, poultry and fish which are to be prepared on surfaces used solely for these raw materials. To prevent the transfer of microorganisms from raw to prepared food it is imperative that personnel handling raw materials confine themselves to this duty. They are not allowed to handle food or equipment in other working sections of the area without changing protective clothing, washing their hands with suitable cleansing agents and thoroughly drying them.
- Foodstuffs are not to be removed from store areas before preparation time
- Handling of products must be kept to a minimum. Tongs, forks and spoons should be used where possible. Where hand contact is essential, clean disposable gloves should be worn where this is practical and be changed between jobs and at

least every 2 hours

- All cuts, and abrasions must be covered with a waterproof dressing.
- Equipment for food contact must be assigned (colour coded) and must only be used for specified foods in specified areas
- All equipment, knives, chopping boards and food contact surfaces are to be cleaned and sanitized between batches of food.
- Thawing : Thaw below 15°C thaw completely and cook within 24 h
- To facilitate thorough cooking all joints of meat should be cooked in conventional ovens and must not exceed 2.5 kg and 100mm thickness or height. Large poultry must not exceed 5-6 kg.
- All items for salads must be thoroughly washed/prepared in a specifically designated, clearly marked area. Such foods should be washed in sinks, which are not used for dish or pot washing or cleaning. Fruit and vegetables should be washed with safe water. If there is any doubt about the cleanliness of raw fruit and vegetables, they should be peeled.

3.4.2 Cook serve meals

- Raw ingredients either those prepared for immediate cooking or those from chilled storage should be placed in the appropriate cooking equipment without delay.
- All cooking equipment shall be equipped with automatic shutoff devices to prevent excessive heat buildup
- The time and temperature of the cooking should be sufficient to ensure that heat penetration to the centre of the foodstuffs reaches at least $+75^{\circ}\text{C}$. To ensure this happens, soups and stews should be brought to the boil and meat should be heated until juices are clear, not pink.
- Food must be immediately placed in preheated hot containers or cabinets and the food temperature must be maintained above $+63^{\circ}\text{C}$ at all times until it is served.
- Service must be completed within 2 hours. Where service is intended to continue for more than 2 hours food must be prepared in batches.
- All food not intended for immediate service or which is intended to be served cold must be treated as cook chill food according to the procedures outlined below.

3.4.3 Regeneration and service of cook chill meals

- Staff carrying out food regeneration must wear the appropriate protective clothing including a disposable apron where necessary. Such staff must have received the appropriate training.

- When the food is removed from the chiller the time and temperature must be recorded on the food regeneration form.
- The food should be immediately placed into the regeneration trolley/oven
- Regeneration times and temperatures are set and programmed into the regeneration equipment. Staff must not attempt to alter these.
- When the regeneration cycle is completed the time and temperature should be recorded on the regeneration temperature control sheet. The food must reach a core temperature of 75°C . If the food is not at a temperature of at least 75°C the food should be kept in the oven and the boost cycle operated (this is normally set for a further 15 minutes but may vary according to the equipment type).
- If the boost cycle is used this should be recorded on the form and the final times and temperatures recorded
- The food may then be served. Second courses and items not required immediately for service should be kept in the oven until required.
- During service hot food must be retained at a temperature of above $+63^{\circ}\text{C}$
- Service of the meal should be completed within 15 minutes that is from the time it leaves the oven to the service of the last patient/client
- Food must be served and consumed on a surface, which is at least 45 cm from the floor to prevent contamination.

3.4.4. Sandwich preparation, storage and display

- Fillings must be kept covered and stored in a refrigerator if prepared the previous day. Preparation must not be more than 24 hours in advance. All fillings are to be labelled with a use by date.
- Fillings for sandwiches must be kept refrigerated to below 3°C during storage and below 8°C when in use.
- Temperatures may rise by no more than 2°C for not than 2 hours during preparation. Written records must be kept of the refrigerator temperature to ensure its proper operation. If the operating temperature is above $+5^{\circ}\text{C}$ food must not be stored in the refrigerator until the fault is corrected.
- Raw foods, other than salad items to be used as fillings must not be stored in the same refrigerator as fillings.
- Sandwich preparation should only be carried out in clearly defined areas which are not to be used for handling raw foods and should not take place directly on to a fixed worktop. Preparation boards should be used.

- Slicing machines, knives, cutting boards etc., used to prepare sandwiches or fillings must not be used for raw foods and should be colour coded. All equipment, knives, chopping boards and food contact surfaces are to be cleaned and sanitized before and after each use and between batches of food. Colour coded items must be cleaned in the areas to which they are allocated and must not be removed from that area for any reason.
- All cuts and abrasions must be covered with a waterproof dressing. Hands must be thoroughly washed and dried between each batch of food.
- Do not remove more fillings from the refrigerator than is necessary for immediate use. Return any unused filling immediately.
- Use tongs or spoons for handling fillings, or wear clean disposable gloves if hand contact is unavoidable.
- Finished sandwiches must be wrapped or covered to protect from contamination. Where they are to be consumed within 4 hour of completion of preparation, All uneaten sandwiches must be destroyed at the end of their time limit

3.4.5 Texture modified products

Texture modified meals, which are provided to people with chewing and/or swallowing problems, also have a greater risk of bacterial contamination. This includes all food that has been pureed or minced after cooking. Where possible, food should be pureed before cooking. Where this is not possible, for example with pureed fruit, particular care must be taken to minimize cross-contamination. Strict time and temperature control must also be maintained.

3.5. Procedure for temperature recording of food

3.5.1 Essential temperatures

- The delivery temperature for cook chill meals must be less than 5°C
- The holding (storage) temperature for cook chill meals must be between 0°C & 3°C
- Chilled food must be destroyed if it reaches a temperature of 10°C
- The regeneration process must heat food to a temperature of at least 75°C
- During hot food service the temperature must remain above 63°C

3.5.2 Method of recording food temperatures

- Locate the thermometer and attach the appropriate probe
- Check that the low bat sign is not showing, if it is replace the battery
- Using a fresh alcohol wipe, wipe the entire length of the probe. Allow the probe to dry in the air.
- Insert the tip of the probe into the centre of the food. Please note that the tip actually reads the temperatures so do not allow the tip to touch the food container, as the temperature reading will be inaccurate.

- Record the time and temperature on the appropriate record sheet
- Clean the probe and thermometer using a fresh 70% alcohol .
- Switch off the thermometer
- Report all faulty food thermometers immediately
- It is advisable to ensure that a spare thermometer is available on each site
- Food thermometers must be recalibrated on an annual basis and the thermometer labelled with the calibration date.

3.6-Transporting Food to the Hospital or Resource Centre

The time taken to transport food to the hospital or resource centre should be kept to an absolute minimum. Temperature control for cooked, refrigerated or frozen foods is difficult to maintain. Failure in temperature control will allow multiplication of micro-organisms. Ensure that:

- Where possible an insulated cool pack should be used for transporting cold food and a hot pack should be used for transporting hot food. These packs must be capable of maintaining hot food above 65°C and cold food below 5°C
- Cooked food is taken to the hospital or resource centre immediately after cooking or immediately after removal from the fridge. It must be delivered within 1 hour.

3.7- Serving Food

3.7.1 General

Staff involved in serving food must ensure that:

- Hands are washed prior handling food and mask should be worn.
- All crockery, cutlery and utensils are clean.
- Food for ward parties should be put out in small portions, to reduce wastage.
- **Left over** food must not be left out for more than 12 hours at room temperature, thereafter any unconsumed food must be discarded .
- All food that is put out for consumption must be discarded. It must not be re-stored and consumed later.
- When a need arises for an isolation tray the dietary staff makes notation on patient's meal ticket, and informs the kitchen staff , followed by serving meal on disposables until further notice.

3.7.2 Food trolleys

In hospitals and large health care establishments, mechanical transport can make it easier to distribute equipment and also reduce the movement of people, thus minimizing the spread of infection. Trolleys should be of suitable height to allow good visibility during use, be appropriate for the type of transport, and should be enclosed They should be cleaned daily or more frequently if contamination occurs. The cart traffic shall be designed to eliminate any danger of cross-circulation between outgoing food carts and incoming, soiled carts, and the cleaning and sanitizing process. Cart circulation shall not be through food processing areas

3.8. Ward kitchens

Ward kitchens or food-handling areas and the staff using them should observe the same levels of food and personal hygiene as other food handlers. There should be specific written cleaning and waste disposal policies.

Ward refrigerators, dishwashers, microwave ovens and ice-making machines are used by nursing staff, domestic staff and visitors, and are often used incorrectly. Ward kitchen refrigerators should be used solely for patients' food and never for medicines, units of blood or pathology specimens. Ice-making machines should have a planned maintenance and cleaning protocol.

3.9. Food handlers

3.9.1 General

- A food handler is defined as any member of staff who is at any time involved in the preparation or service of any food for patient or staff consumption. This includes catering, housekeeping, portering, nursing staff and staff providing hospitality.
- Close attention must be paid to personal hygiene. Staff handling food directly must always wash their hands thoroughly before commencing the task and before each change of task.
- All staff who handle food must ensure that hair is kept short or neatly tied back and that jewellery is kept to a minimum.
- Nail should be kept short with no nail polish or strong smelling perfume Hand hygiene
- Personnel preparing open food must wear clean overalls, tunic, uniform or similar, plus head covering. Porters/Drivers must wear a clean uniform.
- All food handlers have a moral and legal responsibility to follow good standards of hygiene in order to prevent food contamination.
- Food handling staff involved in primary or substantial food preparation such as kitchen staff and regeneration staff must wear a coat over general clothing to prevent contact with food and potential contamination. Hospitality staff or food handlers who are handling food on a periodic basis must wear an apron or coat for the same reason.

3.9.2 Screening of food handlers

Prior to appointment and periodically all food handlers including temporary staff must undergo a health check with the Public Health Department. Staff must not commence work until written clearance has been given by the Public Health Department.

3.9-3 Reporting infection

Food handlers must be made aware of the need to report any of the following to their superior or manager which in turn report to the concerned authority :

- Fever
- Vomiting
- Diarrhoea
- Septic skin lesions
- Discharge from ears, eyes or nose
- After returning from a period of ill health absence or from a holiday abroad

Return to work depends on whether it is considered safe, usually by the occupational health department

3.9.4 Training

- All food handlers must receive Basic Food Hygiene Training. Once trained a food handler should undertake refresher training at regular intervals as and when required.
- Food hygiene training will identify the general requirements for all staff who handle food. Additionally it is advisable to display a copy of the general principles or requirements to be followed day to day. These requirements should be displayed in a wipe clean display in all food preparation areas.

3.10-Food waste disposal

- Food waste is not to be allowed to accumulate in food rooms. It is essential to remove food waste immediately and correctly. ON NO ACCOUNT MUST LEFT OVER FOOD BE KEPT FOR FUTHER USE.
- All containers used for holding waste foods must only be used for that purpose. Containers are to be easily cleaned, cleaned inside and out at least daily.
- Containers used for waste food are to be lined with plastic liners, which can be easily removed to ensure minimum food waste comes into contact with the container and should be covered with a lid.

3.11-Pest control

Catering areas can provide ideal conditions for survival and multiplication of pests. We should ensure:

- cleaning tasks are properly carried out to prevent residual deposits being left .
- dry goods store cupboards will be inspected regularly for signs of infestation and presence of out of date unwrapped stock .
- food is stored and eaten in appropriate and identified areas only .
- refuse areas are to be kept clean and tidy with lids closed on all refuse containers.

- all defects in the building fabric that could be conducive to infestation e.g. broken tiles to be reported to ensure they are repaired and removed.
- electrified flying insect killers are cleaned and maintained and that the light tubes are replaced on a regular basis.

3.12- use of water

Only safe water according to Ministry of Health specification should be used for food preparation, handwashing and cleaning. .

3.13-Use and care of equipment

3.13-1 Dishwashers

Where possible all cooking utensils, crockery and cutlery should be washed in a dishwasher. The dishwasher should reach thermal disinfection temperature, i.e., 80°C for 1 minute.

- Dishwashers must be cleaned after every meal service. This includes filters and all internal surfaces following manufacturers guidelines.
- Filters and door seals must be checked regularly and faults reported to the maintenance department immediately.
- Maintainer should be requested to carry out an annual maintenance service to check the door seals and that the operating temperatures remain above 80°C for 3 minutes.
- Remove all packaging and food waste from articles to be washed
- Ensure washed items are dried prior to removal from the machine
- Adhere to the dosage instructions for detergent, rinse aid and salt
- Empty and clean regularly

3.13.2 Refrigerators and freezers

- Adequate ventilation around the unit must be provided as all chilling equipment generates heat.
- Regular maintenance service to check the door seals and operating temperatures.
- Chilling equipment must be capable of maintaining food at the following temperatures:
 - frozen food -18°C
 - cook chill meals 1°C - 3°C
 - provisions (raw meat) 1°C - 3°C

- provisions (dairy) 1°C - 5°C

- Check and record the operating temperatures daily.
- Clean any food debris or spillages immediately.
- Don't place hot or very warm food in chilling equipment.

Chilling equipment should be defrosted if necessary and cleaned frequently in accordance with manufacturers' instructions. Cleaning should include all interior and exterior surfaces as well as door seals. A suitable disinfectant should be used during the cleaning of all internal surfaces and fans. After cleaning the surfaces need to be completely dried. **Appendix 3**

3.13.3 Ice machines

Ice from contaminated ice machines has been associated with patient infection. Microorganisms may be present in ice, ice storage chests and ice-making machines. The two main sources of microorganisms in ice are the potable water from which it is made and a transfer of organisms from hands.

- Proper hand hygiene when dealing with the ice scoop
- Use a smooth-surface ice scoop to dispense ice.
 - Keep the ice scoop on a chain short enough the scoop cannot touch the floor, or keep the scoop on a clean, hard surface when not in use.
 - Do not store the ice scoop in the ice bin.
- Do not store pharmaceuticals or medical solutions on ice intended for consumption; use sterile ice to keep medical solutions cold, or use equipment specifically manufactured for this purpose
- Machines that dispense ice are preferred to those that require ice to be removed from bins or chests with a scoop.
- Limit access to ice-storage chests, and keep the container doors closed except when removing ice
- Clean, disinfect, and maintain ice-storage chests on a regular basis.
 1. Follow the manufacturer's instructions for cleaning.
 2. Use a Ministry of Health (MOH) approved disinfectant suitable for catering services on ice machines, dispensers, or storage chests in accordance with label instructions. (Phenol is not allowed to use in food preparation area)
 3. If instructions and disinfectants suitable for use on ice machines are not available use a general cleaning/disinfecting regimen as follows:
 - Disconnect unit from power supply.
 - Remove and discard ice from bin or storage chest.
 - Allow unit to warm to room temperature.
 - Disassemble removable parts of machine that make contact with water to make ice.
 - Thoroughly clean machine and parts with water and detergent.
 - Dry external surfaces of removable parts before reassembling.
 - Check for any needed repair.

- Replace feeder lines as appropriate (e.g., when damaged, old, or difficult to clean).
 - Ensure presence of an air space in tubing leading from water inlet into water distribution system of machine.
 - Inspect for rodent or insect infestations under the unit and treat as needed.
 - Check door gaskets (open compartment models) for evidence of leakage or dripping into the storage chest.
 - Clean the ice-storage chest or bin with fresh water and detergent; rinse with fresh tap water.
 - Sanitize machine by circulating a 50–100 parts per million (ppm) solution of sodium hypochlorite (i.e. 4–8 mL sodium hypochlorite/gallon of water) through the ice-making and storage systems for 2 hours (100 ppm solution), or 4 hours (50 ppm solution).
 - Drain sodium hypochlorite solution and flush with fresh tap water.
 - Allow all surfaces of equipment to dry before returning to service.
- Flush and clean ice machines and dispensers if they have not been disconnected before anticipated lengthy water disruptions.
 - Flush and clean the ice machines and dispensers if they have not been disconnected before anticipated lengthy water disruptions
 - Install proper air gaps where the condensate lines meet the waste lines.
 - Conduct microbiologic sampling of ice, ice chests, and ice-making machines and dispensers where indicated during an epidemiologic investigation.

Food and beverages Samples:

Samples from all prepared food and beverages should be kept refrigerated for 72 hours to be microbiologically analyzed in cases of food poisoning.

4. References

1. Food Safety and Hygiene Working Group. Food Safety (General Food Hygiene) Regulation 1995. Guide to Compliance of Caterers. London. HMSO 1995
2. Guidance on The Investigation and Control of Outbreaks of Foodborne Disease in Scotland” Food Standards Agency/Scottish Executive Health Department 2002 – Amendment No. 08 – 2006
3. Essential environmental health standards in health care Edited by John Adams, Jamie Bartram, Yves Chartier World Health Organization 2008.
4. CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Guidelines for Environmental Infection Control in Health-Care Facilities 2005
5. West Lincolnshire Primary Care Trust .Catering Policy 2005

5. Appendices

Appendix 1

▪ The commonest causes of food poisoning.

- Preparing food too long in advance.
- Storing food at ambient temperatures.
- Cooling food too slowly before placing in refrigerator.
- Not reheating food to temperatures at which food poisoning bacteria can be destroyed.
- Using contaminated food.
- Undercooking meat, meat products and poultry.
- Not thawing frozen poultry and meat for long enough.
- Cross-contamination between raw and cooked food.
- Keeping hot food below 63°C.
- Infected food handlers.

Appendix 3

Refrigerator/chiller/freezer - operating temperatures

TIME	DATE	EQUIPMENT	TEMPERATURE RECORDED	SIGNED