

-Draft-

**GUIDELINES FOR FOOD SAFETY
(MEDIUM TO SMALL EATING ESTABLISHMENTS)**

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FOOD SAFETY GUIDELINES FOR ALL TYPES OF FOOD OUTLETS: MEDIUM TO SMALL

INTRODUCTION

Commonwealth Games are going to be organised in Delhi in 2010 which is likely to bring in a large number of participants and visitors to the city of Delhi. This provides a unique opportunity for reviewing and upgrading the safety of the food served in the eating establishments in Delhi and perception of Delhi as a hygienic and safe food destination.

The norms listed in this guidance note apply to restaurant/food outlets / food establishments which will be identified and listed for 'SAFE FOOD, TASTY FOOD' PILOT PROJECT IN DELHI for Common wealth games 2010.

The norms apply to small and medium restaurants/food outlets/food establishments involved in the processing, manufacturing, handling, distribution and serving ready-to-eat food in their premises including caterers. Food business operators must ensure that the food products they use are safe and their food, premises and services comply with the norms fully. Food business operator must also take the required action if their food, premises and services fail any of the criteria given here.

1. GENERAL REQUIREMENTS

1. Display of license/Notices/Certificates etc.
2. Knowledge of food handling practices.
3. Regular health status monitoring of food handlers.
4. Food safety messages depending on type of food being sold.
5. Special instructions on product (food being sold), if needed.

2. RAW MATERIALS

Raw materials are of great importance as biological, chemical or physical hazards that may be introduced at initial stage may persist through preparation and processing. Use raw materials of acceptable grade (not low grade).

Hence, **precautions** needed are:-

1. Obtain raw materials from reliable and known dealers. Do not purchase from illegal/unauthorized dealers. (e.g. illegal slaughter houses etc.).
2. Check for visible deterioration and off odour.
3. Sort food ingredients to segregate materials which are evidently unfit for human consumption.
4. Look for temperature abuse, especially for frozen food, live signs of thawing. (e.g. water droplets on the product, textural changes etc.).
5. Examine for physical hazards and foreign body contamination.
6. Examining for chemical hazards is very difficult without laboratory examination but some idea may be generated by checking colours, olfactory signs, textures etc.
7. Raw materials should be purchased in quantities that correspond to adequate storage/preservation capacity.
8. Packaged food products must be checked for 'expiry date' / 'best before' / 'Use by' date, packaging integrity and storage conditions.
9. Proper rotation of all raw materials and finished materials should be undertaken on FIFO (First In First Out), FEFO (First Expired First Out) and FMFO (First Manufactured First Out) basis.
10. Raw materials once procured should be carefully stored to avoid accidental exposure to unwanted contaminants (viz. physical, chemical and biological) during transport and storage.

- Materials to be consumed should be suitably covered while transportation and stored covered and separately from other raw materials and non food items.
- Materials should be transported in such a way as to limit pathogen growth or toxin formation by controlling time of transportation, exposure, temperature control and using safe water for cleaning etc.
- Receiving and storage temperature of potentially high risk food should be at or below 5 °C.
- Receiving and storage temperature of frozen food should be -18 °C or below.

11. Raw paste, sauces etc. should be stored in properly covered containers made of food grade material and checked regularly for fungal growth, deterioration etc.

3. WATER AND ICE

Use of safe water is critical as unsafe water will lead to contamination (particularly biological) of safe water making it unsafe. Water to be used for all the following purposes need to be safe and free of any contamination.

- Water for drinking
- Water for cooking as an ingredient
- Water for processing of food
- Water for washing of equipments, utensils, containers, kiosks etc.
- Water for hand washing

Ice is of equal importance as freezing does not remove chemical hazards and also several types of biological hazards. Contaminated ice will introduce hazards to foods and beverages when added.

Hence, **precautions** needed are:-

- 1) Access to sufficient quantity of safe water (taps etc.) at close distance or at one's own premises.
- 2) Water for drinking and for preparation of beverages should be potable. (It should be equivalent to standards of drinking water).
- 3) Water should be stored in sanitary state in close containers with taps for withdrawal.

- 4) The water containers including water dispensers should be regularly emptied and cleaned regularly and dried (by turning up side down) at the end of day's sale wherever possible.
- 5) Non potable water systems/containers should be identified and labelled. It should not connect with, or allow to reflux into potable water supply.
- 6) Water drainage should be properly maintained so as to prevent the risk of contaminating food or the potable water supply.
- 7) Ice should be prepared using potable water.
- 8) Ice should be transported and stored and used in sanitary manner.
- 9) No food or beverages should be stored in the same container used to store the ice intended for consumption.

4. FORMULATIONS

For some special types of foods with high levels of salts, sugar, acid or low moisture special attention must be given by both food seller as well as the Authorities.

- Monitor critical limits through taste, appearance, textures, odour, mixing time, pH, water level etc.
- Keep the consumer informed by displaying the ingredients, indicative of possible allergens (Milk, egg, fish, Crustacean shellfish, nuts, wheat gluten, peanuts and soya proteins), high sugar etc. for health reasons.

Precautions needed are:-

- 1) Food should be properly protected after cooking, from all possible sources of contamination. If the prepared food is to be seasoned with uncooked ingredients (e.g. fresh coriander, lettuce etc.), do not expose the food to excessive contact with these ingredients, in time or temperature, before consumption.
- 2) Sandwiches should preferably be prepared at the moment of consumption.
- 3) Fresh salads and fresh fruit dishes should preferably be seasoned at time of consumption.
- 4) Raw eggs preferably should not be used in the preparation of food and beverages intended for direct consumption that are not to be cooked afterwards.

5. PREPARATION AND PROCESSING

While selection of foods is of great importance so as not to introduce hazards which may be carried through the rest of the chain, it is equally or even more important to follow correct preparation and processing techniques as follows.

- The preparation/processing/cooking should be adequate to eliminate and reduce hazards to an acceptable level which might have been introduced at the raw food (start) level.
- The preparation/processing/cooking methods should ensure the foods are not re-contaminated.
- The preparation/processing/cooking of veg. & non-veg. products should be segregated.

Hence, **precautions** needed are: -

- 1) Avoid direct and indirect contact between raw and cooked food.
- 2) Clean hands, clean and unsoiled equipment, clean work surfaces and any other place with which the food is coming in contact, should be used.
- 3) If frozen foods are to be used, they should be thawed well before cooking to ensure adequate heat penetration.
- 4) For any type of cooking (boiling, frying, grilling, baking etc.) cooking should be thorough and adequate with temperature reaching at least 70⁰ C of each and every part of the food to ensure proper heat penetration.
- 5) Salads should be kept below 5⁰C from preparation to final consumption.
- 6) Food should not be overcooked (e.g. charring) leading to chemical hazards.
- 7) Re- use of cooking oil should be avoided.
- 8) If fermented foods (Idli, Dosa etc.) are being made then timing should be carefully maintained to prevent growth of pathogens and toxin formation.
- 9) Labelling of pre-packaged food – Pre-packaged food should be labelled as per the regulatory requirements indicating the name, address of the manufacturer/packer, contents/ ingredients along with weight/volume, type of oil/fat used, method of use, instructions for storage and expiry date.
- 10) In-process ingredients and raw materials while in use should be properly and safely stored to prevent contamination.

Requirements for processing/preparation of fruits/vegetables:-

- 1) Fruits and vegetables that have been protected from cross-contamination and properly conserved should be used.
- 2) Fruits and vegetables should be used after removing parts or items in poor condition.
- 3) Whole fruits and vegetables should be washed in potable water before being cut, mixed with other ingredients. Uncooked, ready-to-eat fruits & vegetables should be disinfected with 50 ppm chlorinated water before cutting, peeling or serving.
- 4) Fruits and vegetables should be peeled, squeezed and/or cut, as appropriate, with clean equipment/ utensils made of non-absorbent food grade materials.
- 5) Previously prepared fruits/vegetables should be kept in clean and properly covered food grade containers under refrigeration or at a maximum temperature suitable for the product in question.

Requirements for processing/preparation of Non-veg. Products:-

- 1) Raw meat and processed meat should be separated from other foods; items and surfaces.
- 2) Separate items (e.g. cutting boards, dishes, knives) and preparation area for raw meats and poultry and marine products should be used to avoid cross contamination of food.
- 3) Hands should be thoroughly washed before switching from preparing raw meat or poultry or marine products to any other activity.
- 4) Ensure proper cooking of all non veg. products.
- 5) Used surfaces should be washed with antibacterial cleaning agent, rinsed properly with water and sanitized after preparing raw meat/poultry.
- 6) Ensure that frozen products are thawed as per point no. 10 under high risk foods.

6. TRANSPORTATION, HANDLING AND STORAGE OF PREPARED FOOD

Hygienic and safe transportation, handling and storage of prepared food is essential to prevent contamination of a safe prepared food, ready for direct consumption.

Hence, the **precautions** needed are:-

- 1) The vehicle/transportation being used to carry cooked/prepared/processed food should be clean, should be dedicated for this purpose and should not carry anything else.

- 2) Time required for transportation should be minimum, to avoid microbial proliferation.
 - In case food is to be prepared and served in the near vicinity, it should be transported & served hot at temperature above 60⁰ C and consumed within 4 hours.
 - In case food is prepared at long distances which require transportation for longer period, the food should be chilled to less than 5⁰ C and transported and reheated at the time of service to a temperature of at least 70⁰ C, served at temperature above 60⁰ C and consumed within 4 hours. Reheating should be done once.
- 3) Cooked food served hot should be kept at a temperature of at least 60⁰ C to prevent microbial growth.
- 4) Cooked food to be served cold should be kept below 5⁰ C to prevent growth of pathogens. Otherwise time of holding should be limited.
- 5) Only permitted food additives may be added within permissible limits.
- 6) Veg. foods should always be stored above non-veg. foods and cooked foods above uncooked foods on separate racks in the refrigerator. All foods must be kept covered.
- 7) Handling of food should be minimal. It should be ensured that utensils, crockery, cutlery and specially hands of the food handlers/seller are clean and sanitized.
- 8) All surplus food and unused thawed food should be discarded.
- 9) Food to be kept for cold storage should be distributed in small volumes to ensure uniform cooling.
- 10) It is recommended that even dry, fermented and acidified foods should be stored in a cool and dry place.
- 11) All packaged food viz. sterilized milk, bottled beverages; canned foods should be stored properly to ensure that seals remain intact and undamaged.

7. PERSONNEL HYGIENE

The hygiene and health of all food handlers (persons who prepare/sell) are essential to keep food safe. Physical hazards like wearing of jewellery, having bandages on or careless attitude should also be avoided.

Hence, **precautions** needed are: -

- 1) Motivate, educate, encourage and most importantly supervise employees, to stop handling food when they get infected viz. Jaundice, diarrhoea, vomiting, fever, sore throat, eye, nose or ear discharge, skin problems (boils, cuts, itching etc.).

- 2) Food handlers should wear clean and proper clothing. They should cover hair and wear hand gloves while handling food.
- 3) Street shoes inside the food preparation area should not be worn while handling and preparing food.
- 4) Personal belongings should be kept away from food and food contact surfaces.
- 5) Hand washing facilities should be available at the outlet along with continuous supply of water, soap and tissue roll/paper towel/hand dryer or hand sanitizer.
- 6) Hand washing is critical for all food handlers using soap and water. Thorough washing under running water needs to be ensured before & after handling food and especially after using toilets, handling garbage, touching animals, touching raw food of animal origin, touching toxic substances like cleaners, pesticides, disinfectants etc.
- 7) Food handlers should avoid following practices while handling food :
 - Chewing or smoking tobacco
 - Chewing betel nut or gums
 - Touching mouth, tongue, nose, eyes or other body parts
 - Spitting, sneezing, coughing etc.
 - Touching ready-to-eat food with bare hands
 - Handling food and money at same time
- 8) Handlers should ensure:
 - Careful food handling
 - Protect food from environmental exposure
 - Do not wear jewellery/threads/cosmetics on hands

8. VENDING/SELLING UNITS, EQUIPMENTS AND UTENSILS

Design, construction and maintenance of all food related equipments, utensils and units should be such that they can be cleaned and sanitized totally (to ensure no build up of residues), should be made of safe material and stored properly after drying.

Hence, **precautions** needed are:-

- 1) Properly designed and constructed equipment/utensils should be used to ensure effective cleaning and sanitizing.

- 2) All equipment/utensils should be made of non-absorbent food grade material.
- 3) Utensils etc. used for raw food should be separated from that of prepared foods and should be sanitized properly before each use.
- 4) Single-use/disposable items such as straws, paper towel, disposable cups and plates shall not be reused.
- 5) Re-usable serving utensils/items should be in good condition and should be washed, cleaned and disinfected after each use.
- 6) Crockery, cutlery and all equipment and utensils should be kept clean, hygienic, dry and away from toxic and hazardous elements.
- 7) Clean & safe water should be available for washing of utensils, cutlery etc. along with cleaning agents. Utensils/ equipments should be air dried or clean and sanitized cloth should be used for wiping, wherever required.
- 8) Cutlery (i.e. knives, spoons, forks etc.) should be held by the handles.
- 9) Cracked or chipped dishes, utensils, glasses etc. should be discarded.
- 10) Vending stalls should have cover viz. canopy, umbrella etc.
- 11) Personal belongings, such as clothes, footwear etc. should not be kept at the vending unit, preparation, storage and sale area.
- 12) Vending units/sale /preparation area should be at least 30 cm off the ground and suitable for the quantity of food prepared, handled and stored.

9. REQUIREMENTS AT THE POINT OF SALE

Vendors may be classified into high risk and low risk groups for giving proper and targeted education, training and motivation and also for proper monitoring and auditing by regulatory bodies.

This is the last and final stage of the chain operation. The food may be prepared: –

- At the selling point itself.
- At a kitchen attached to the selling point.
- Elsewhere and brought to the selling point, which may be at a central kitchen for several outlets, owners home etc.

Assuming that the food till its completion of preparation has remained safe, the following **precautions** are needed at the point of sale to keep them safe and hygienic: –

- 1) Sold in a clean and dry place, protected from dust, wind, rain, strong sun and flies & insects.
- 2) Should be away from all animal and human waste.
- 3) Animals should not be allowed in the vicinity.
- 4) All food and beverages should be kept properly covered at all times.
- 5) Counter display of cold foods should be at 5 °C or below and hot foods at 60 °C or above.
- 6) Food left at ambient temperature for more than 2 hours should be discarded.
- 7) Disposable gloves shall be used only once.
- 8) All take away foods should be cleanly wrapped in safe and preferably environment friendly material.
- 9) Food should not be kept in contact with any printed paper or newspaper etc.
- 10) Salt, sugar, mustard, ketchup etc. to be used by the consumer should be supplied in single portion and any leftover food should not go back into the dispenser.

10. ENVIRONMENT & SURROUNDINGS

It should be ensured that food procured and prepared hygienically do not get contaminated due to an unclean and unhygienic environment, hence, all areas used for preparation and display and sale of food should have clean surroundings.

Hence, the **precautions** needed are: -

- 1) The food preparation and selling areas are clean, dry, well lit and hygienic with proper ventilation system in place and should be in an airy environment and not in a damp and wet place.
- 2) All wastes should be taken from these areas regularly.
- 3) There should be no open drains, garbage stacks or public latrines near the area.
- 4) In the food establishment, the toilet should not open directly into the food processing, display or selling area.
- 5) No one should be allowed to spit or wash hands/face/body near the area.
- 6) The foot path etc. should be properly maintained.
- 7) No waste water should accumulate or run through the area.

- 8) Cooked food selling areas should be separate from raw food selling areas.
- 9) Adornments, such as vases with or without flowers or plants and other items should be maintained in such a way that they do not represent a source for food contamination.

11. CLEANING AND SANITIZING

Cleaning and sanitizing at every point of the preparation chain has to be ensured by using proper cleaning agents, methods and cleaning schedules.

- Food contact surfaces (direct – equipments, utensils, crockery etc.) should be kept clean and disinfected.
- Other areas and surfaces (e.g. racks, chimneys, door knobs, burner heads, drip trays etc.) which are not coming in direct contact with food should be kept clean and disinfected wherever required.

These have already been discussed in the above points in a step wise manner.

12. WASTE DISPOSAL AND PEST CONTROL

Waste disposal (organic and other) is critical to keep food and beverage safe at every point of the chain, waste at no point should come in contact with the food directly or indirectly (through flies, insects etc.)

Hence, it has to be ensured that –

- 1) Biodegradable and non-biodegradable wastes should be separated right at the point of putting them into the bins.
- 2) Liquid and solid wastes should be separated right at the point of putting them into the bins.
- 3) Waste should be suitably disposed of as per law.
- 4) All garbage cans should be covered, cleaned daily, sanitized and collected at an assigned collection point at a public garbage collection system.
- 5) The garbage cans should be kept at sufficient distance to avoid food contamination.
- 6) Food waste should be disposed of in such a way as not to attract insects and animals, such as flies, dogs, cats and rodents.
- 7) Adequate pest control measures should be in place.

SPECIAL REQUIREMENTS FOR HIGH RISK FOODS

The general food safety guidelines are given in the foregoing part of this document. These apply for all kinds of food products including beverages, as a thumb rule for ensuring safety measures.

This section deals selectively with few varieties of food which are high risk as per HACCP and may need special attention. The type of foods covered here are as follows:

1. Cut fruits/salads, fresh juices and beverages

- 1) Fresh fruits /vegetables cut or juiced should ideally be used immediately; however, short storage should be only under refrigeration in sanitized and properly covered vessels.
- 2) Water used in beverages should be potable.
- 3) Ice used should be made of potable water only.
- 4) Food or beverages should not be stored in the same container used to store the ice intended for consumption.
- 5) Juice concentrates must be checked regularly for any fungal growth / change of colour, odour or gas formation in the bottle.
- 6) Juice dispensing machine should be cleaned and rinsed with water regularly.
- 7) Containers made of food grade material should be used for collecting juice.
- 8) Clean and intact utensils/crockery & cutlery / disposables should be used for serving.

2. Confectionery products

- 1) Prepared confectionery products should be kept in airtight containers and displayed hygienically.
- 2) Cream to be used is stored covered under refrigeration.
- 3) Finished products should be refrigerated with proper labels indicating date of expiry.
- 4) Products should be properly wrapped/ packaged after proper cooling.
- 5) Only permitted food additives (colour, preservatives, flavouring agents etc.) are to be used.

3. Meat, poultry & fish products

- 1) Non veg. products/raw materials should be purchased (chilled products temperature should be at 5⁰C or below and frozen products at -18 ⁰C or below) from authorized/ licensed slaughter houses/vendors.
- 2) Processing area should be cleaned and disinfected promptly.
- 3) Preparation and processing of meat, poultry and marine products should be separate.
- 4) Non-veg. products are washed with potable water before use.
- 5) Non-veg. products are cooked thoroughly (core temperature 75⁰ C) for at least 15 seconds or an effective time/temperature control e.g. 65 ⁰C for 10 minutes, 70 ⁰C for 2 minutes.
- 6) Non-veg. products should be stored covered in refrigerator below the veg. products.
- 7) Raw and cooked products should be stored physically separated with cooked products at the top.
- 8) All refuse/waste should be promptly removed from preparation area.

4. Milk & dairy products

- 1) All equipments and utensils should be thoroughly washed and rinsed with potable water before starting of work and at the end.
- 2) All mechanical equipments should be routinely cleaned, checked and maintained.
- 3) All products should be routinely checked for spoilage/contamination and shelf life.
- 4) Any spoiled/contaminated product should be promptly removed and discarded.
- 5) Milk should be received in clean and hygienic conditions at temperature below 5⁰C.
- 6) Milk and milk products should be used immediately or pasteurized and refrigerated.

5. Water based chutneys, sauces etc.

- 1) All fruits/vegetables should be washed properly before processing.
- 2) Clean and disinfected chopping boards/grinding stone/machine should be used.
- 3) Personal hygiene of food handlers need to be ensured.
- 4) Water used in the chutneys should be safe and potable.
- 5) Only permitted food additives should be used, if required, and in added in recommended quantities only.
- 6) Spoiled products should be discarded immediately after confirmation of spoilage (change in colour/ texture/ odour).

- 7) Sauces and chutneys should be stored in glass/food grade plastic containers with proper lids.
- 8) Clean and intact containers should be used for storing sauces and chutneys.
- 9) Sauces and chutneys should be stored in refrigerator when not in use.
- 10) Perishable/uncooked chutneys should be consumed immediately.

6. Foods transported to point of sale from the point of cooking

- 1) Food is reheated up to 70⁰ C before consumption.
- 2) Food is consumed within 4 hours of reheating.

7. Foods with Gravy

- 1) Food products are not stored at room temperature for more than 2 hours during display or sale.
- 2) For prolonged storage, foods are stored in refrigerators or kept for hot holding at or above 60⁰C.
- 3) Food products are reheated (up to 70⁰C).
- 4) No water should be added after cooking/reheating/boiling.

8. Fried Foods

- 1) Proper quality / branded oils/fats should be used for food preparation, frying etc.
- 2) Use packaged oil only.
- 3) Use of oils with high trans fats (like vanaspati) should be avoided as far as possible.
- 4) Re-heating and reuse of oil should be avoided as far as possible. Therefore, avoid having leftover oil wherever possible.

9. Post Cooked Mixing

- 1) Ingredients added to the cooked food should be thoroughly washed/ cleaned.
- 2) After cooking or post cooked mixing, the food should be used immediately.
- 3) Garnishes etc., if added should be prepared using fresh, thoroughly washed and freshly cut vegetables and used immediately.

10. Thawing of Frozen Products

- 1) Frozen products should be thawed in refrigerator/microwave/convection oven or under running potable water well before cooking.

- 2) Only required portion of the food should be thawed at a time.
- 3) Thawed products should be used immediately and not refrozen or kept in chiller.