

**SECTION 5**

**ADDITIONAL GUIDANCE**

## 5.1 HACCP EXPLAINED

### ➤ What is HACCP?

HACCP means **Hazard Analysis Critical Control Points**.

This is a process that helps you look at how you handle food and introduce procedures to make sure the food you produce is safe to eat.

HACCP involves the following 7 steps:-

- 1 identify *what* could go wrong (the **hazards**);
- 2 identify the most important points where things can go wrong (**the critical control points – CCPs**)
- 3 set **critical limits** at each CCP (e.g. cooking temperature/time);
- 4 set up checks at CCPs to prevent problems occurring (**monitoring**);
- 5 decide what to do if something goes wrong (**corrective action**);
- 6 prove that your HACCP process is working (**verification**); and
- 7 keep records of all of the above, including training records (**documentation**).

Your HACCP Plan must be kept up to date. You will need to **review** it from time to time. A minimum of a yearly review is recommended. You must also review your HACCP Plan if anything in your food operation changes e.g. use of new equipment or changes to your menu.

➤ **What are the hazards?**

Hazards are those things that can cause harm to the consumer. Food can be contaminated by:-

- bacteria e.g. salmonella, E.coli (**bacterial contamination**)
- foreign objects e.g. glass, metal (**physical contamination**)
- chemicals e.g. cleaning agents, detergent, bleach, pesticides (**chemical contamination**). Remember to consider foods or ingredients to which people may be allergic e.g. nuts/peanuts.

Bacteria are the most common causes of serious problems with food. This document will help you look at all of the hazards, but more emphasis will be given to bacterial hazards.

You will find simple controls and checks for foreign object/chemical contamination on pages 33-35 and for nut/peanut allergy on pages 36-37.

As part of the HACCP Plan you must consider the hazards at all the different stages of preparation. Section 3 of this document will help you do this (see pages 8-40).

➤ **What are Control Points, Critical Control Points and Critical Limits?**

A **critical control point** is where a particular step, such as refrigeration or thorough cooking, **must** be carried out to make sure the hazard is removed or reduced to a safe level. For example,

- cooking roast beef thoroughly to destroy bacteria,
- refrigerating roast beef to reduce bacterial growth
- handling roast beef carefully to avoid cross-contamination

You must set a **critical limit** at each critical point. For example,

- a minimum cooking temperature/time
- a maximum fridge temperature

The step is *not* critical if another step later on in the process will remove or reduce the hazard to a safe level. For example, refrigerating raw meat which is to be thoroughly cooked would not be critical as the cooking process should destroy any bacteria that may be present. However, it is good practice to refrigerate raw meat to reduce the chance of bacterial growth. These steps are known as **control points**.

### ➤ **How to Control and Monitor**

The **controls** are what you must do to prevent problems occurring. For example,

- keep high risk food\* at or below 8°C during delivery and storage
- cook raw food until the core temperature reaches 75°C
- prepare high risk food on separate work surfaces from raw food

You can **monitor** these controls by making simple checks. For example,

- check the temperature of high risk food on delivery and in your own fridges
- check the core temperature of high risk food with a probe thermometer to make sure it is thoroughly cooked
- make sure equipment is clean and that the correct equipment is used when handling high risk food (such as colour coded chopping boards and knives)

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\* **HIGH RISK FOODS** are those on which bacteria grow easily. They are ready-to-eat or will only receive light cooking which will not destroy any bacteria which may be present. Examples are given at the end of this Section on page 57.

You should identify who is responsible for carrying out these checks and make sure they are properly trained (see Section 5.6, page 65). Monitoring will include regular checks of your own premises and looking at how food is handled. A checklist, Form FS5, is included on pages 46-47.

**Remember:** If checks show that something is wrong, *corrective action* must be taken. In other words, you must do something immediately to deal with the problem and make sure food which could be unsafe is not sold to your customers.

### ➤ **How to verify the HACCP System?**

This is about *proving* that what you are doing is working. It includes proving that your analysis of the hazards is correct and that the checks that you make at the critical points are effective.

You should:-

- inspect your own premises and staff practices (see FS5 pages 46-47)
- examine records and documents kept by your staff
- check thermometer calibration records (see FS6 page 48)

Where you rely on:-

- reading display gauges of equipment, these should be cross-checked regularly by using your calibrated probe thermometer and recording food temperatures in FS2, page 43.
- a time/temperature combination for cooking, this should be cross-checked regularly by using your calibrated probe thermometer and recording food temperatures in FS3, page 44.

You should also:-

- review inspection reports from Environmental Health Officers
- review bacteriological and chemical sample reports from Environmental Health Officers

You may consider arranging your own tests for food products to examine them for microbiological contamination and chemical composition.

### ➤ **How to carry out a review**

A review involves thinking again about the hazards, critical points, controls and checks, especially when the food business operations change.

Reviews must be carried out regularly. It is recommended that you do this at least once a year, for example, whenever your food operations change.

Examples of changes that may affect your operations include:-

- a new product or a change of recipe
- changes in the structure or layout of the premises
- new equipment (blast chill, cooking equipment)
- if new information becomes available on hazards or risks

If changes are small, a simple review may be adequate to make sure the current procedures are still valid.

Remember to include review dates on page 40 of your HACCP Plan.

## ➤ **Records**

A HACCP system requires the keeping of certain records. This will be achieved by using this document and the associated record books. Computerised records are also acceptable. Records must be available when requested by your Environmental Health Officer. It is recommended that you keep records for at least 12 months. Your legal advisors may recommend a longer period.

## ➤ **What Are High Risk Foods?**

High risk foods are those on which bacteria grow easily. They are ready to eat or will only receive light cooking which will not destroy any bacteria which may be present.

High risk foods include:-

- cooked meats and poultry, such as prepared meals, pies, pates and any dishes made with meat, poultry, gravy or stock.
- cooked, smoked or cured fish, such as salmon, mackerel, trout, haddock and kippers.
- shellfish, such as raw or lightly cooked oysters and cockles, cooked prawns and crab.
- dairy products and dishes made with cheese, egg or milk. Includes quiche, custard, dairy based desserts and lightly cooked or raw egg products, such as mousse and Hollandaise sauce.
- soft cheese and mould ripened cheese, such as Brie, Stilton, Danish Blue and Camembert.
- any ready to eat food, such as prepared salads (e.g. potato salad, coleslaw) and sandwiches containing any of the above.
- cooked rice.
- dishes containing raw or lightly cooked meat, fish or egg.

## 5.2 FOOD ALLERGIES

Allergies can cause a life-threatening reaction which affects the whole body, often within minutes of eating the food. Several types of nuts, shellfish and sesame seeds are among the most common foods to cause this reaction.

Symptoms may include swelling of the throat and mouth, resulting in difficulty in breathing, collapse and unconsciousness. Research suggests that 1 in 200 people could develop severe reaction to peanuts.

Customers who suffer from severe food allergies need to know the exact ingredients of any food they eat, because even a tiny amount of the food or ingredient could kill them. Always make sure that there is a member of staff on duty who knows or can find out the ingredients of all foods if requested. **If you are not sure if there is a trace of a life-threatening ingredient in a meal, then say so - never guess.**

It is essential that you ask manufacturers to give you accurate written details about all ingredients of prepared meals, as well as all pre-packed foods. Foods which are considered 'high risk' for people who are allergic to nuts or nut products include cakes, biscuits, pastries, cereal bars, mixed nuts, confectionery, ice cream desserts, breakfast cereals, peanut butter, nut spreads, ground nuts vegetarian products, Chinese, Thai or Indonesian dishes, satay sauce curries, unrefined cooking oils. Other less obvious sources of nuts and seeds are marzipan, hummus, halva, tahini, salads and salad dressings.

Customers suffering from severe food allergy will usually know about the foods they must avoid. Information on controls for nut/peanut allergies is included in your HACCP Plan (pages 36-37).

Ask your local Environmental Health Officer for further information.

### 5.3 FITNESS TO WORK

Food handlers have a responsibility to avoid passing on germs when they handle food. There is a particular risk of this happening if food handlers are suffering from diarrhoea or vomiting or if they have infected cuts.

Staff must, by law, report illness to the owner or manager as soon as possible. They may be asked to leave the premises or be given a different job which does not involve direct contact with food or working in areas where food is stored or handled.

You can help reduce the risk of food becoming contaminated by food handlers by:

- Supervising staff in safe food handling
- Making sure staff are adequately trained (see Section 5.6, page 65)
- Advising staff of their legal duty to report infections
- Making sure that visitors who may come into contact with food or equipment do not cause contamination

The law puts the responsibility on employers to satisfy themselves that no food handler poses a risk to food safety. The fitness of the food handler to work should be checked before they are employed or before they return to work after illness. It is also recommended that an assessment is carried out for all existing employees. This can be done using form FS8, page 50.

Further guidance on this subject is contained in the Department of Health booklet "Food Handlers - Fitness to Work - Guidelines for Food Business Managers", available from the Food Standards Agency, Branch A, 8<sup>th</sup> Floor, Aviation House, 125 Kingsway, London WC2B 6NH.

## 5.4 CLEANING SCHEDULES

Cleaning schedules are required within a food business to ensure that necessary cleaning processes are undertaken to the required standard and at the required frequency. Schedules must be clear.

The schedule should state:

- What is to be cleaned
- Who is to clean it
- When it is to be cleaned
- How it is to be cleaned (i.e. procedure)
- Materials to be used i.e. chemicals and equipment
- Precautions to be taken
- Who is to monitor

While a cleaning schedule will have to be tailored for your business, an example is set out below. A blank cleaning schedule is given on page 61 for your own use. An example of a cleaning record sheet is also given on page 62. Persons carrying out cleaning tasks and supervisors verifying the process should initial cleaning record sheets.

### EXAMPLE - CLEANING SCHEDULE

EQUIPMENT	FREQUENCY OF CLEANING	PRECAUTIONS	METHOD OF CLEANING/DISINFECTING	PERSON(S) RESPONSIBLE
<i>Slicing Machine</i>	<i>After each period of use and before use for high risk food</i>	<i>Trained staff member only. Use blade guard and gloves.</i>	<ul style="list-style-type: none"> <li>• <i>Switch off power supply, disconnect lead.</i></li> <li>• <i>Scrape off food and rinse.</i></li> <li>• <i>Take apart and wash thoroughly in hot water and detergent (e.g. Fairy Liquid).</i></li> <li>• <i>Spray with disinfectant (e.g. Dettol or similar product).</i></li> <li>• <i>Leave to air dry or wipe dry with clean disposable paper.</i></li> </ul>	<i>A N Other</i>

## CLEANING SCHEDULE

EQUIPMENT	FREQUENCY OF CLEANING	PRECAUTIONS	METHOD OF CLEANING/DISINFECTING	PERSON(S) RESPONSIBLE



## 5.5 PEST CONTROL

Food pests spread disease and cost thousands of pounds worth of damage to food businesses and their reputations.

### Common Pests

- Rats and mice
- Insects, including flies, cockroaches, ants, etc.
- Birds including sparrows and pigeons

### Hazards

Bacterial contamination	bacteria from pests and their droppings
Physical contamination	pests' bodies, eggs, hairs, droppings, etc.
Chemical contamination	careless use of pesticides

### Control Methods

The key points may include:-

- Good design and proofing of buildings
- Good housekeeping/removal of food spillage and waste
- Check incoming goods
- Correct storage of food and food packaging
- Doors should be well fitted and kept closed when not in use

- Windows should be insect screened where necessary
- The building should be well maintained so that no holes are left e.g. around pipes

If you discover a pest problem in your premises you must take immediate steps to deal with it. These may include:

- Contacting a pest contractor
- Contacting your local Environmental Health Officer
- Ensuring that any contaminated food is removed immediately
- Cleaning and disinfecting all areas
- Finding out the cause of the infestation and ensuring that it does not recur
- Repairing any maintenance defects immediately

Food businesses must ensure that any person/company that carries out pest control measures is competent and that managers/owners should be kept informed of any action taken. A written record should be kept following each visit. Using external contractors does not remove or reduce the legal responsibility of a food business if pests contaminate food.

Further information on pest control can be found under "Training" Section 5.6, pages 75-76.

## 5.6 TRAINING

You must make sure that staff receive adequate supervision, instruction and/or training in food hygiene to allow them to do their job safely. Staff should receive training on your HACCP Plan and their responsibilities to control and monitor critical points. You should consider disciplining staff who continually fail to apply the controls you have specified in your HACCP Plan.

The following information outlines the recommendations given in the *Industry Guide to Good Hygiene Practice : Catering Guide*.

- All food handlers should receive instruction on 'The Essentials of Food Hygiene' **before** starting work. See page 66.
- All food handlers should receive 'Hygiene Awareness Instruction' **within 4 weeks** (8 weeks for part-time staff) See page 67-77.
- Staff involved in preparing high risk food, such as cooks and kitchen assistants, should receive formal training **within 3 months** of their appointment. This will include Basic or Elementary Food Hygiene Courses or Modules taken over approximately 6 hours.
- It is recommended that managers and supervisors who handle any type of food are trained to at least Intermediate Level. Such courses will be of 12 - 24 hours duration.

It is recommended that you keep records on staff training. A form, FS7, is provided on page 49 to help you do this. Ask your local Environmental Health Officer for further information on food hygiene courses.

## "THE ESSENTIALS OF FOOD HYGIENE"

- Keep yourself clean and wear clean clothing.
- Always wash and dry your hands thoroughly: before handling food, after using the toilet, handling raw foods or waste, before starting work, after each break, after blowing your nose.
- Tell your supervisor before you handle food if you suffer from any skin, nose, throat, stomach or bowel trouble or infected wound. You are breaking the law if you do not. This is particularly important if returning to work following an illness.
- If you have to visit the doctor please remember to say you are a food handler.
- Tell your supervisor if anyone in your home is ill.
- Make sure cuts and sores are covered with a waterproof dressing which can be easily seen e.g. blue.
- Avoid unnecessary handling of food.
- Do not smoke, eat or drink in a food room, and never cough or sneeze over food.
- If you see something wrong - tell your supervisor.
- Do not prepare food too far in advance of service.
- Keep perishable food either refrigerated or piping hot.
- Keep the preparation of raw and cooked food strictly separate.
- When reheating food make sure it gets piping hot.
- Clean as you go. Keep all equipment and surfaces clean.
- Follow any food safety instructions either on food packaging or from your supervisor.

## “HYGIENE AWARENESS INSTRUCTION”

### **The Importance Of Hygiene**

Poor standards of food hygiene can cause serious illness and may result in court action and closure of business. It is important that food is sold from premises which are clean and by people who know how to handle food safely.

To help you do this, the following notes will explain what can cause food poisoning and how to prevent it.

Remember that you have a responsibility to handle food correctly so that it is safe for customers to eat.

### **Food Poisoning**

Food poisoning is an illness caused by eating contaminated food. Food can be contaminated by:

- bacteria
- viruses
- mould
- metals
- chemicals

Natural poisons may also be present in fish and plants.

Food poisoning symptoms include diarrhoea, abdominal pain, vomiting and nausea. Symptoms usually start between 1-36 hours and can last for a few days.

Food poisoning is more commonly caused by eating food contaminated with bacteria. Sources of bacteria are:

- raw food
- pests
- people
- dirt and dust
- refuse

Bacteria may already be present on food, especially raw food. Food might also become contaminated from one of the above sources. This is particularly important for food which is cooked or ready to eat.

Bacteria need food, warmth, moisture and time to grow. They will grow quickly at temperatures between 8°C and 63°C. It is therefore important that food is not left in a warm place for too long.

Bacteria may survive cooking if it is not carried out properly.

To help avoid food poisoning you must:

- buy food from a good supplier
- avoid contamination of food

control the temperature of food during delivery, storage, preparation and service

### **Cross-Contamination**

Cross-contamination occurs when harmful bacteria are passed onto food which is cooked or ready to eat.

Bacteria can be passed from various sources:-

- raw food: meat, poultry, fish, eggs and vegetables
- equipment: particularly equipment used for raw food, such as chopping boards and knives
- cloths: particularly cloths used for wiping surfaces on which raw food has been placed
- people: germs are found on hair, nose, skin, cuts and grazes and on clothing
- pests: flies, mice, rats and cockroaches
- refuse: bacteria on rotting food, flies

Cross-contamination can be avoided by following these simple steps:

- keep raw foods apart from food which is cooked or ready to eat
- use separate equipment and work surfaces for raw and cooked food and disinfect after use
- use separate cloths for raw food areas and disinfect after use (disposable colour-coded cloths are recommended)
- food handlers must wash their hands after using the toilet and after handling raw food and waste materials
- cover food placed on display
- cover cuts and grazes
- Keep premises pest-free and store food in covered pest-proof containers

## **Food Storage**

Food must be stored correctly to avoid contamination by bacteria, pests, foreign materials and chemicals. Checking date codes and stock rotation is important to avoid using food which is stale or unsafe to eat. Good stock rotation means that food should be used on the basis of "First in, First out". Care should be taken not to

simply top up containers.

Food must be stored at the correct temperature to avoid spoilage and bacterial growth.

Storage requirements will vary depending on whether the food is fresh or processed and on how it is packaged, such as canned, chilled or frozen.

Food may be stored

- at room temperature
- in a refrigerator
- in a freezer

### ***Room Temperature***

Dry foods, such as flour and rice, should be stored in rooms which are clean, dry and well ventilated. Food should be kept off the floor and placed in covered containers.

Fruit and vegetables should be kept in a cool room and stored off the floor. They should be stored away from food which is cooked or ready to eat to avoid contamination from soil and bacteria.

### ***Refrigerators***

Bacteria will grow readily in foods, such as meat, poultry, fish and dairy products. These foods must be kept cold and should be stored at a temperature of not more than 8°C. Fridges must not be over-stocked to allow cold air to circulate. The temperature of fridges should be checked twice daily and they should be serviced regularly.

Separate fridges should be used for storing raw and cooked food. If the same fridge is used, raw food must be stored on the bottom shelf to avoid contaminating food which is cooked or ready to eat. All food should be covered and fridges must be kept clean.

Refrigeration will not stop bacteria growing and food should only be stored for short periods.

### ***Freezers***

Frozen food will keep for longer periods as bacteria will not grow at very cold temperatures. Freezing, however, does not kill bacteria. Freezers should operate at a temperature of at least -18°C.

Freezers will have a star rating to indicate how long food can safely be stored:

- \* 1 week
- \*\* 1 month
- \*\*\* 3 months
- \*\*\*\* 3 months or longer. Capable of freezing fresh foods

Frozen food should be placed in the freezer as soon as it is delivered. Date codes should be checked regularly and stock rotated. Fresh food which you freeze on your premises should be date-coded by you to make sure that it is used within a satisfactory time period. Storage times will vary depending on the type of food and on your particular freezer.

Freezers should be defrosted and cleaned on a regular basis and as recommended by the manufacturer.

## Personal Hygiene

Food handlers must have high standards of personal hygiene to protect food and help make sure that it is safe to eat.

People can spread bacteria onto food. Bacteria can be found on:-

- hands
- hair
- mouth, nose, ears
- skin
- spots, cuts, grazes

Food can also be contaminated by hair, jewellery, nail varnish, buttons and fabric from clothing.

You can protect food by:-

- Washing hands often and always after
  - \* visiting the toilet
  - \* touching your face, especially your nose, mouth and ears
  - \* handling raw food
  - \* handling rubbish
  - \* cleaning
  - \* breaks away from the workplace
- Using clean towels to dry hands. Towels used by others should be avoided due to the risk of spreading germs. Disposable paper towels are recommended.

- Keeping cuts and grazes covered and avoiding touching spots.
- Tying long hair back and covering hair with a suitable head covering.
- Avoiding wearing jewellery, particularly rings and ear-rings with stones or jewels.
- Keeping nails short and clean. Nail varnish must not be worn.

Food handlers are required by law to report certain illnesses or conditions to the owner of the food business. If you are suffering from diarrhoea and / or vomiting, or if you have any infected skin wounds, you must tell the owner. You may be asked to leave work until you are well or you may be given another job which does not involve handling food or working in an area where food is stored. If your symptoms last for more than 24 hours, you should visit your doctor.

Your employer may ask you to complete a questionnaire about your health. If you have been ill, it is important that you follow the correct procedures to avoid the risk of spreading infection.

### **Cleaning and Disinfection**

Food premises must be kept clean and tidy and it is important that equipment and surfaces are disinfected regularly. Cleaning needs to be effective. Hot water and detergent will help dissolve grease and dirt.

Disinfection will reduce bacteria to a safe level. This can be done by using very hot water, at about 82°C, or by using a suitable disinfectant. Disinfectants should be left in contact with surfaces for the length of time recommended on the instructions. Equipment and areas which require disinfection include utensils, chopping boards, containers and work surfaces and hand contact surfaces, such as fridge handles.

Cleaning and disinfection should be carried out in the following stages:

- 1 *pre-clean* to remove food residue
- 2 *main clean* with hot water and detergent
- 3 *rinse* to remove traces of detergent
- 4 *disinfection* to reduce bacteria
- 5 *final rinse* to remove traces of disinfectant
- 6 *drying* with disposable cloths or air drying

Disinfectants on their own will not kill germs on surfaces which are not physically clean.

A sanitiser is able to clean and disinfect. It is a chemical which contains a detergent and disinfectant and therefore combines stages 2, 3 and 4.

Chemicals must be stored away from food and be kept in labelled containers. Always follow safety instructions.

### **Foreign Object Contamination**

Foreign bodies may be brought into the premises with raw materials or introduced during storage, preparation or display. Some may be unpleasant, such as hair and paper, whilst others may be harmful, such as glass and metal.

Examples of other foreign bodies which may be found in food include nuts and bolts, paint and rust, staples and plastic, rodent droppings and insects and stones

Food must be bought from a good supplier and be stored in clean, covered containers. Fruit and vegetables must be thoroughly washed before use. Glass should be avoided where possible and equipment kept in good repair. The premises must be kept clean and free from pests.

### **Waste Disposal**

Effective waste disposal is important to protect food and to avoid attracting pests.

Waste bins should be easy to clean and disinfect and should have a close-fitting lid. Waste may be placed in polythene bags and removed when full and at the end of each day. Stands for these bags must be kept clean. Pedal operated bins are recommended to avoid touching lids.

The bags should be tied and stored outside the premises in a large bin or secure compound to prevent damage by dogs, cats and pests. The waste compound must be capable of being cleaned and should be washed down regularly. Waste bins should not be situated too close to windows and doors to encourage flies to enter food rooms.

### **Pest Control**

Food pests spread bacteria and spoil food. They include rats, mice, flies, birds and insects. Food premises are attractive to pests because they provide a source of food in addition to warmth and shelter.

Signs of pests include:

- live or dead mice, insects, etc.
- droppings
- eggs/larvae (grubs)
- smell/noise
- damage to food/packaging/property

You can help prevent pests by good housekeeping:-

- keep premises pest-proof (e.g. self-closing external doors and fly-screens on windows opened for ventilation)
- remove food spillages and waste
- keep premises clean and tidy
- store food in pest-proof containers
- rotate stock

### **Controlling Food Safety - HACCP**

The owner of a food business has to identify where hazards might occur in the food business. These hazards could be contamination of food with bacteria, foreign bodies or chemicals.

The owner then has to go through the operation step by step and decide what controls have to be introduced to avoid causing harm to customers. These controls have to be checked to make sure they are working.

Examples of controls are:

- storing food at the right temperature
- cooking food thoroughly
- avoiding cross contamination during preparation

Examples of checks are:

- taking temperature of fridges
- taking temperature of cooked food
- making sure separate chopping boards and knives are used for raw and cooked food

If the checks show that something is wrong, corrective action must be taken, that is, you must do something to deal with the problem.

Examples are:

- changing the temperature of the fridge
- cooking food for longer
- discarding food which may have been contaminated

You will play an important part in controlling food safety by following procedures in your workplace. Always remember to protect food from contamination, look out for hazards and follow the basic rules of temperature control. You should also report anything which could cause a problem for food safety. By acting responsibly, you can help avoid legal action and prevent customers from becoming ill or being injured. You can also help your business achieve a good reputation. Safe Catering is everyone's responsibility.