'Cook**Safe**' is designed to assist catering businesses understand and implement a HACCP based system. By reading this manual and following the instructions, you will be able to develop HACCP based procedures which will fit your needs.

> **What is HACCP?** The letters HACCP stand for "Hazard Analysis and Critical Control Point"
>
> HACCP is a widely accepted food safety management system, which can easily be adapted to suit all sizes and types of food businesses. The main aim of HACCP is to focus attention on critical points in the operation and to take measures to ensure that problems do not occur.

Everyone involved in the food industry is aware of the importance of good food hygiene practices and of the need to handle food in a safe, clean environment.

How this manual can help you

'Cook**Safe**' is split into 5 sections as follows:

1. **Introduction Section** – contains guidance on the HACCP terms used in this manual

2. **Flow Diagram Section** – provides guidance and a template for you to draw your own Flow Diagram

3. **HACCP Charts Section** – shows you what could go wrong at each process step and what you need to do about it. Guidance and examples are provided for you to consider in relation to your business

4. **House Rules Section** – contains guidance and templates to help you write your own House Rules building on your day-to-day safe working practices

5. **Records Section** – contains guidance and templates for you to use to link in with all the other sections

This manual contains essential information on HACCP principles as well as guidance on a range of other food safety issues. There is also an Action Plan for you to record the progress you have made, as you work through the 5 sections mentioned above.

WHAT YOU NEED TO DO

It is recommended that you work through this manual in the order it has been laid out. However, the sections of this manual link into each other and you can work through them in the order that suits you.

Remember to record your progress on the Action Plan

Scope of the manual

This manual is designed to be suitable for use in the majority of catering businesses. You will need to adapt the sections to suit the way that your business operates. Guidance is given in each section on how to do this.

If you find that you have additional process steps or require different records, this manual is easily adapted to fit in with the system you use or one you design to suit your particular business. 'Cook**Safe**' is designed to build upon your existing good practices, that is, the safe working practices that you already use as part of your daily routine.

This manual has been based on the best information available at the time. Revisions and updates will be issued periodically.

The information in your copy should accurately reflect all of the operations carried out within your business. In particular, your House Rules should be written in a manner which can be readily understood by all of your food handling staff.

Legal Responsibilities

This manual contains general advice only and this guidance is based on the Food Standards Agency's present understanding of the applicable law but it will be for the courts to provide a definitive interpretation of that law. This guidance is not a substitute for the text of relevant legislation which will continue to apply and it will remain the duty of food business proprietors to comply with that legislation.

In the event of any apparent conflict between the guidance contained in this manual and the relevant legislation, you should seek your own legal advice on the application of this guidance manual in relation to your own circumstances.

EXPLANATION OF HACCP

This manual uses a number of terms which may not be familiar to you. These are explained below:

Process Steps

To understand HACCP based procedures, you should think of your catering operation as a sequence of process steps.

The first step is the purchase of food – and the last step is serving it to your customers.

The following simplified diagram shows the process steps which may be involved in a typical catering business:

```
┌─────────────────────────────────────┐
│  Purchase, Receipt/Delivery, Collect │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│              Storage                 │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│             Preparation              │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│               Cooking                │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│             Hot Holding              │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│               Cooling                │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│              Reheating               │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│               Service                │
└─────────────────────────────────────┘
```
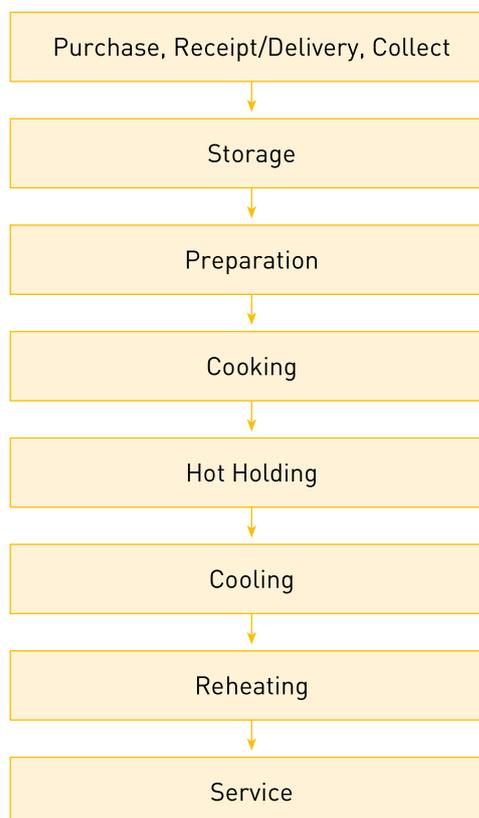
This is a simplified diagram and may not show all of your process steps or the order in which they usually occur in your business.

'Cook**Safe**' **provides you with a template for drawing your own Flow Diagram** (refer to the **Flow Diagram** Section of this manual).

Hazards

A "Hazard" is anything which may cause harm to your customers through eating your food.

A HACCP based approach to food safety requires you to identify all of the hazards at each process step in your catering business, this is called "hazard analysis". It is at this point that you need to think about what could go wrong in your business and then come up with measures that will prevent or control these hazards.

There are three types of hazard:

- Microbiological

- Chemical

- Physical

Microbiological hazards include food poisoning bacteria such as *Salmonella*, *E. coli O157* and *Bacillus Cereus* which are hazardous because they can:-

- **Survive** inadequate cooking, if already present in food, for example, *Salmonella* in chicken

- **Multiply** to harmful levels in food given the right conditions, for example, poor temperature control during storage, handling or hot holding

- **Spread** from raw foods such as meat, poultry and unwashed vegetables to ready-to-eat foods either directly or via food handlers, work surfaces and equipment – this is known as "cross contamination"

Other microbiological hazards such as certain bacteria, yeasts and moulds may lead to food spoilage.

Chemical hazards may already be present on certain foods in the form of pesticides or insecticides. Chemical hazards may also arise from incorrect storage and the misuse of chemicals used in food premises such as cleaning chemicals and rodent baits.

Physical hazards include contamination by materials such as glass, plastic, wood, metal, hair and contamination caused by pests.

'Cook**Safe**' identifies the hazards which are most likely to be found at each step in your business (refer to the **HACCP Charts** Section of this manual).

Control Measures

Once you have identified your process steps and the hazards likely to occur, you must find ways of preventing or **controlling** these hazards.

The measures which you decide upon must make all of the hazards safe – these measures are known as "Control Measures".

Control Measures take many forms, for example:

HAZARD
survival of harmful bacteria
which may cause food poisoning

CONTROL MEASURE
'**thorough cooking**'

HAZARD
spread of harmful bacteria
which may cause food
poisoning from raw food to
ready-to-eat food

CONTROL MEASURE
careful '**handling practices**'
such as keeping these
foods apart at all times
and maintaining strict hand
washing procedures
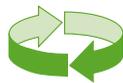
'Cook**Safe**' provides guidance on the Control Measures which are likely to apply to **your** business (refer to the **HACCP Charts** Section of this manual).
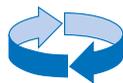
You can then decide on your Control Measures and list these in the House Rules Sections (refer to the **House Rules** Section of this manual).

Critical Control Points (CCPs)

A HACCP based approach to food safety helps you to focus attention on the issues that are **critical** to food safety.

Critical Control Points (CCPs) are the stages of your process where the hazards must be controlled for the food to be safe to eat.

All hazards at Critical Control Points (CCPs) must be eliminated or reduced to a safe level by a suitable Control Measure.

> **Critical Control Point (CCP) example 1: Cooling rice**
> If rice is cooled too slowly, it could give your customer food poisoning. In this example, '**cooling**' is a Critical Control Point (CCP).
>
> **Critical Control Point (CCP) example 2: Cooking a burger from raw**
> If the burger is undercooked, any harmful bacteria present in the meat will not be destroyed and the surviving bacteria could give your customer food poisoning.
> In this example, "**cooking**" is a Critical Control Point (CCP).

'Cook**Safe**' focuses on the Critical Control Points (CCPs) which are most likely to occur within a typical catering business (refer to the **HACCP Charts** Section of this manual).

Critical Limits

Critical Limits are specified safety limits which your Control Measures at Critical Control Points (CCPs) must achieve.

> **Critical Limit example 1: Cross Contamination Prevention**
> If one of your methods of preventing cross contamination is the use of differently coloured chopping boards and knives for different foods, then your "Critical Limit" in this case is for staff to: "always use the coloured chopping boards and knives correctly".
>
> **Critical Limit example 2: Temperature Control**
> If food is to be kept chilled and you have decided that the temperature of the refrigerator must be no higher than 5°C, then "**5°C**" is the "Critical Limit".
>
> **NOTE:** In your Temperature Control House Rules, you will set your Critical Limits.

Monitoring

A HACCP based approach to food safety requires that all Control Measures at Critical Control Points (CCPs) must be monitored.

> **A Monitoring example: Checking the temperature of a refrigerator to ensure it is within its Critical Limit.**
>
> In this instance, the Control Measure (to prevent bacterial growth) would be temperature control. If the Critical Limit has been set at 5°C, the purpose of Monitoring in this example would be to check that the Critical Limit of 5°C has been met.
>
> **NOTE:** In your Temperature Control House Rules, you will establish your monitoring and its frequency.

Monitoring methods may vary according to your own Control Measures and Critical Limits.

> Certain Control Measures may have Critical Limits which cannot be easily measured in the way that temperatures can.
>
> For example, the correct use of differently coloured equipment for different purposes is one way of providing the Control Measure for Hazards such as cross contamination. In this case, the most effective Monitoring would be: "supervision of staff to ensure that they follow the Cross Contamination Prevention House Rules".
>
> **NOTE:** In your Cross Contamination Prevention House Rules you will describe your Control Measures.

'Cook**Safe**' provides you with **HACCP Charts** which suggest the kind of Monitoring that may be carried out by you. However, you will be expected to decide on the type of Monitoring that is appropriate in your business (refer to the **HACCP Charts** Section of this manual).

Records

A requirement of a HACCP based system is that Monitoring is recorded at a frequency that reflects the nature and size of your business. This may be achieved by completing the relevant parts of the Recording Forms which can be found in the 'Records' Section of this manual. Alternatively, you may wish to record your Monitoring in other ways, for instance, by drawing up your own forms, recording electronically or by the use of a diary. In such cases you should ensure that your record keeping arrangements are sufficient for the size and nature of your business.

'Cook**Safe**' provides you with a range of Recording Forms, which may be used by your business (refer to the **Records** Section of this manual).

Monitoring which only involves supervision may simply require a supervisor or manager's signature to confirm that the actions have been carried out. HACCP Records must be retained for an appropriate period of time to enable you to demonstrate that your system is working effectively. Your Enforcement Officer can give guidance on this timeframe.

Corrective Action

If you monitor a Control Measure and find that it has failed to meet its Critical Limit, you must act to make the food safe or to prevent it being used. This is known as a "Corrective Action".

Corrective Actions follow on from the Monitoring process and must be recorded.

Corrective Action example 1: Temperature Control
If your refrigerator temperature Critical Limit is 5°C but your Monitoring check finds that the refrigerator is running at 12°C, then your Corrective Action could be: "call the Maintenance Engineer and consider if the food is safe to use".

Corrective Action example 2: Cross Contamination Prevention
Your Cross Contamination Critical Limit is to "keep raw foods and ready-to-eat foods separate". However, when carrying out your Monitoring check you see a cheesecake on a raw food chopping board in the Raw Food Area of your kitchen. Your Corrective Action should be: "Dispose of the cheesecake (the person doing so should wash their hands afterwards) and investigate the breakdown in procedures. Retrain the relevant staff members on the correct procedure".

NOTE: Your Corrective Actions will be written into your records.

Corrective actions have two functions:

•   to deal with the food in question – either by making it safe or by stopping its use

•   to prevent the problem happening again – by considering the cause of the failure of the Control Measure and taking appropriate action

'Cook**Safe**' provides suggestions on the types of Corrective Actions that may be appropriate in your business (refer to the **HACCP Charts** Section of this manual).

Verification

Verification involves taking an overview of your HACCP based system to ensure it is working. Verification also involves establishing that your procedures are effective in controlling hazards and checking to see that your procedures are being applied in practice.

Verification examples:

- Checking that the Control Measures at CCPs are being consistently applied

- Checking that the appropriate Corrective Actions have been taken

- Checking that Monitoring Records are consistent and accurate

- Checking that your procedures are still relevant and up to date

(refer to the **Review Record** in the **Records** Section)

Verification actions undertaken must be recorded.
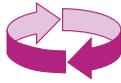
When you check and sign off the records found in 'Cook**Safe**' you will be carrying out "Verification" (refer to the **Records** Section of this manual).

Documentation

A HACCP based system must have appropriate documentation to demonstrate it is working effectively.

Documentation to support your HACCP based procedures must include details of your intentions in all the key areas mentioned throughout this Section.

'Cook**Safe**' supplies you with templates for all of the documentation required to produce a HACCP based system.

A HACCP based system is a food safety management system which, if used correctly, can help to ensure safe food production.

It is essential that your business is committed to operating the system in full otherwise the benefits will be reduced and food safety compromised.

A certain amount of food safety knowledge is required by the operators of the business prior to implementing the HACCP based system.

ONCE YOU HAVE READ THIS SECTION, REMEMBER TO SIGN AND DATE THE INTRODUCTION SECTION OF THE ACTION PLAN.

Glossary of other terms

The HACCP terms have already been described in this Section. This page provides a glossary of other terms used in 'Cook**Safe**'.

ACTION PLAN	The documented record of actions to be completed by the person using this guidance manual in order to devise a HACCP based food safety management system.
ALLERGY	An overly aggressive response by the body's immune system to foods that non-sufferers would find harmless.
AMBIENT TEMPERATURE	The temperature of the surrounding environment - commonly used to mean room temperature.
BACTERIA	Groups of single cell living organisms. Some are known to cause food poisoning or food spoilage.
'BEST BEFORE' DATE	The date marked on the label of a food up to and including the date that the food can reasonably be expected to remain in optimum condition if properly stored.
CLEANING	The physical removal of food debris, visible dirt and food particles from surfaces, equipment, and fittings using hot water and a detergent.
CORE TEMPERATURE	The temperature at the centre or thickest part of a piece of food.
CONTACT TIME	The period of time that a disinfectant should be in contact with a surface to achieve disinfection.
CONTAMINATION	The introduction to, or occurrence in, foods of any harmful substance which may compromise the safety or wholesomeness of those foods.
CROSS CONTAMINATION	The transfer of harmful bacteria from contaminated food to uncontaminated food either by direct or indirect contact.
DETERGENT	A cleansing substance (which does not have disinfectant properties) made from chemical compounds and used for general cleaning.
DISINFECTANT	A substance capable of destroying harmful bacteria, when applied to a visibly clean surface, at a specified concentration and contact time.
DISINFECTION	The application, following general cleaning, of a disinfectant or treatment to facilitate the removal of harmful bacteria from surfaces or equipment.
DUAL-USE	The use of any equipment, for both raw foods and also for ready-to-eat foods.

HARMFUL BACTERIA	Bacteria capable of causing illness through contamination of food.
HIGH RISK FOOD	Usually considered as food that supports the multiplication of harmful bacteria and is intended for consumption without any further treatment, such as cooking, which would destroy such organisms. High risk food is usually high in protein, requires refrigeration and must be kept separate from raw food.
PHYSICAL SEPARATION	Where certain parts of the premises and certain equipment and utensils are used exclusively and permanently for raw foods (including raw meats/vegetables).
RAW FOOD AREA	An area of the kitchen which is permanently reserved for the handling of raw foods only.
RAW FOODS	Raw meat and any raw foods such as unwashed vegetables that are a potential source of harmful bacteria.
RAW MEAT	Beef, pork, lamb, chicken, turkey, game and also includes mince, burgers and sausages.
READY-TO-EAT FOOD	Food which may not require further cooking or reheating prior to consumption.
SANITISER/ BACTERICIDAL DETERGENT	A substance that combines detergent and disinfectant in a single product.
SPORES	Certain kinds of bacteria are capable of entering a resting phase during which they are very resistant to high temperatures and other adverse conditions. Bacteria in this phase are known as spores. If conditions are right, spores will 'germinate' or start to grow.
TOXINS	Toxins are poisons produced by bacteria capable of causing food poisoning.
'USE BY' DATE	A date mark required on microbiologically-perishable pre-packed food after which its consumption could present a risk of food poisoning.
VISIBLY CLEAN	Free from any visible grease or film and solid matter.