# HACCP

## A FOOD SAFETY MANAGEMENT SYSTEM

## What is HACCP?



Food Safety
AUTHORITY OF IRELAND
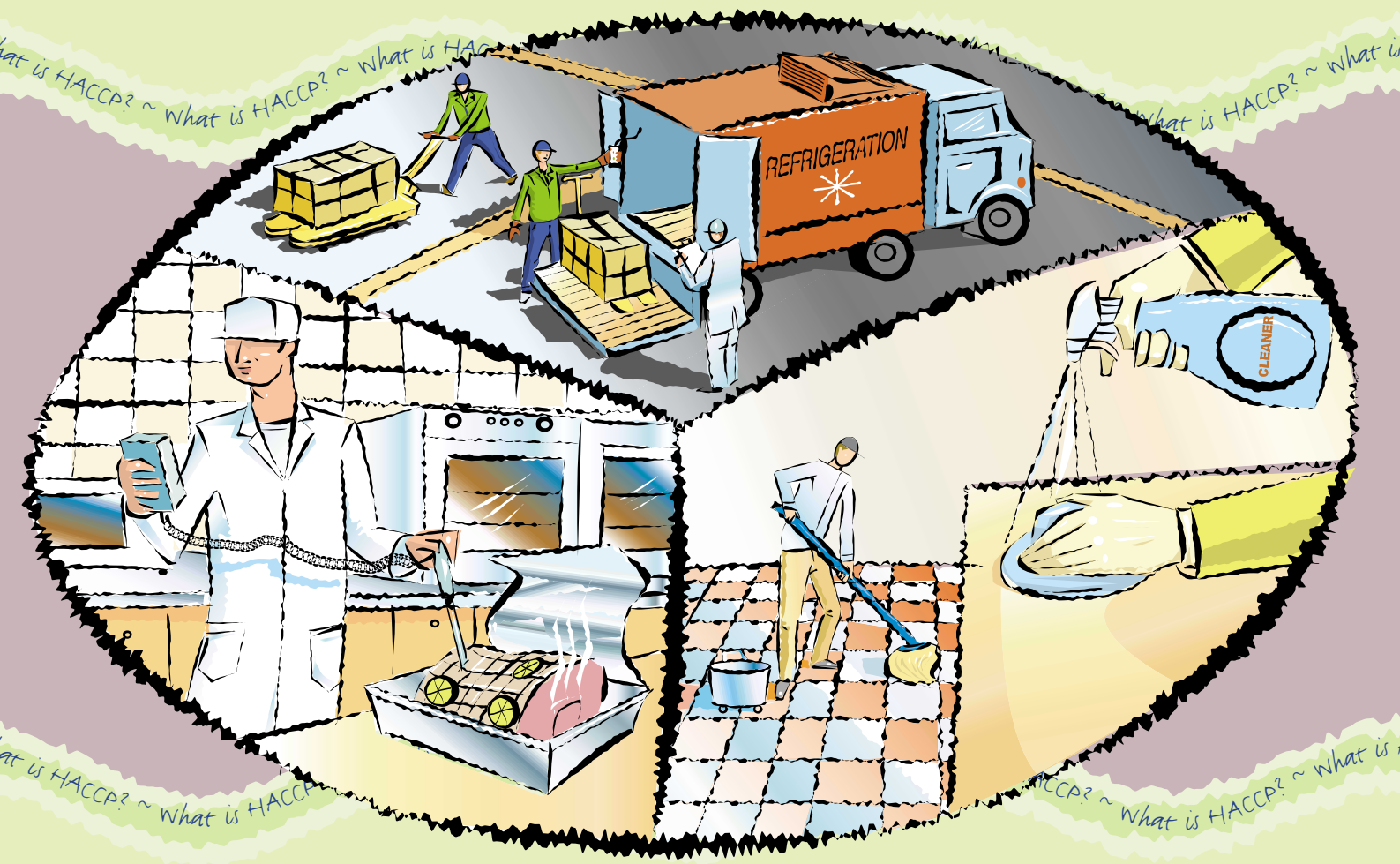
# A Food Safety Management System Based on the Principles of Hazard Analysis and Critical Control Point (HACCP)

## Summary

Hazard Analysis and Critical Control Point (HACCP) is a systematic approach to identifying and controlling hazards (i.e. microbiological, chemical or physical) that could pose a danger to the preparation of safe food. HACCP involves identifying what can go wrong and planning to prevent it. In simple terms, to control the safety of ingredients and supplies coming into a food business and what is done with them thereafter.

Since 1998 it has been a legal requirement for all food businesses to have a food safety management system based on the principles of HACCP. The European Communities Hygiene of Foodstuffs Regulations, 2000 (S.I. No. 165 of 2000) outline what is required of a food business.

The proprietor/manager of a food business has a legal obligation to understand what the Hygiene of Foodstuffs Regulations demands and be able to explain how it has been applied in the food business.

## 2. The Benefits of HACCP to Food Businesses

HACCP provides businesses with a cost effective system for control of food safety from ingredients through production, storage and distribution to sale and service of the final consumer. The preventive approach of HACCP not only improves food safety management but also complements other quality management systems. The main benefits of HACCP are:

**S**aves your business money in the long run

**A**voids you poisoning your customers
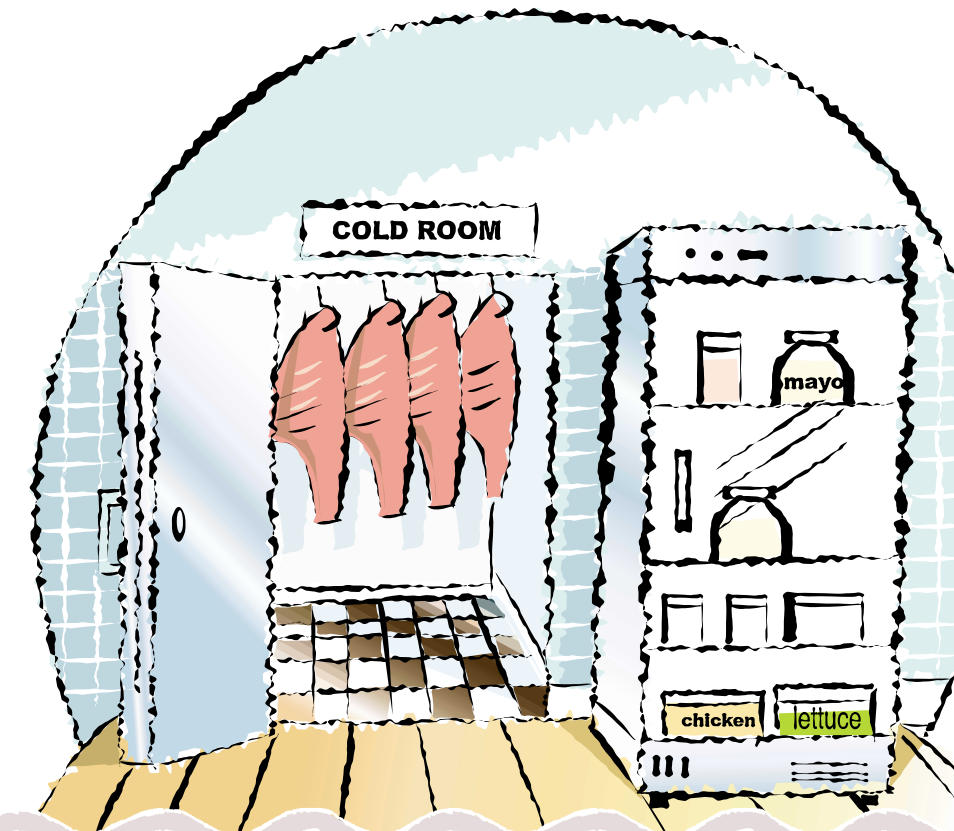
**F**ood safety standards increase

**E**nsures you are compliant with the law

**F**ood quality standards increase

**O**rganises your process to produce safe food

**O**rganises your staff promoting teamwork and efficiency

**D**ue diligence defence in court.

COLD ROOM

mayo

chicken    lettuce

## 3.  Prerequisites (Safety Support Measures)*

Before implementing HACCP, food businesses must already be operating to standards of good hygienic practice by having in place appropriate prerequisites (i.e. safety support measures). The National Standards Authority of Ireland (NSAI) has produced sector specific Irish Standards (I.S.) to good hygienic practice. All food businesses are advised to use the appropriate standard for their sector (e.g. catering, retail, processing). Furthermore, a business's management must give HACCP their full commitment. HACCP can then be used to control steps in the business which are critical in ensuring the preparation of safe food.

**Prerequisites include, where appropriate:**

1.   Cleaning and Sanitation

2.   Maintenance

3.   Personnel Hygiene and Training

4.   Pest Control

5.   Plant and Equipment

6.   Premises and Structure

7.   Services (compressed air, ice, steam, ventilation, water etc.)

8.   Storage, Distribution and Transport

9.   Waste Management

10.  Zoning (physical separation of activities to prevent potential food contamination).

The (NSAI) have also produced a standard, I.S. 343:2000 which outlines a food safety management system based on the principles of HACCP.

* New Codex Alimentarius Definition

## 4.  Getting Started *(Pre-Planning)*

Once the prerequisites are in place you can begin to build HACCP on top of these. The first things to do are:

1.   Train staff and perhaps hire a consultant to help in developing the HACCP system

2.   Depending on the size of the business assemble staff into a small team, with a team leader to lead in designing and implementing HACCP. The team of people should have a good knowledge of your business. Initially, your team will be required to spend a reasonable amount of time and effort to develop and implement the HACCP system

3.   Describe your product(s) and the intended use by consumers and then depending on the size of the business draw up a flow diagram to show each step of your operation. Walk through your operation to confirm that the flow diagram is correct and check that it covers all the foods your business produces.

Now you are ready to apply the principles of HACCP.
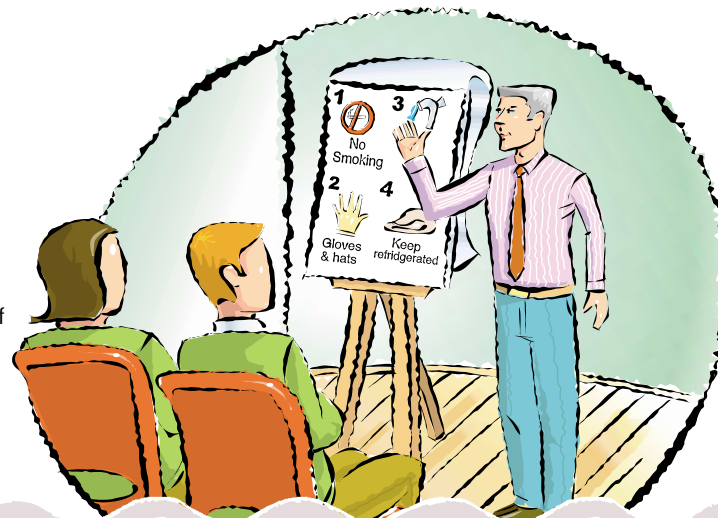


## 5.  Principles of HACCP

There are seven principles of HACCP on which a food safety management system is based. A food safety management system based on the principles of HACCP will enable hazards to be identified and controlled before they threaten the safety of your food and the health of your customers.

1.   **Identify the hazards**

Look at each step (e.g. purchasing, delivery, storage, preparation, cooking, chilling etc.) in your operation and identify what can go wrong e.g. *Salmonella* species in a chicken product (biological hazard), detergent in a chicken product (chemical hazard) or a piece of glass in a salad (physical hazard).

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

Identify the points in your operation that ensures control of the hazards e.g. Cooking beef burgers to a minimum of 70°C for 2 minutes will kill *E. coli* O157 and other pathogens.

3.   **Establish critical limit(s)**

Set limits to enable you to identify when a CCP is out of control e.g. the temperature at the centre of a beef burger product following cooking must reach a minimum 70°C for 2 minutes.

4.   **Establish a system to monitor control of the CCP**

When CCPs and critical limits have been identified it is important to have a way to monitor and record what is happening at each CCP. Typically monitoring will involve measuring parameters such as temperature and time. However, how you monitor and how often will depend on the size and nature of your business. Monitoring should in all cases be simple, clear and easy to use e.g. recording the final cooking temperature and time for a cooked beef burger.

5.   **Establish the corrective action to be taken when monitoring indicates that a particular CCP is not under control**

When monitoring indicates that a CCP is not under control, corrective action must be taken e.g. the temperature of cooked meat in a refrigerator rises to >10°C for over 24 hours due to a technical fault in the refrigerator. The cooked meat is destroyed and the refrigerator is repaired by the manufacturer to maintain new cooked meat supplies at the correct temperature of ≤5°C.

6.   **Establish procedures for verification to confirm the HACCP system is working effectively**

Review and correct the system periodically and whenever you make changes to your operation e.g. microbiological analysis of a chicken product to verify that it is free of Salmonella bacteria after cooking.

7.   **Establish documentation concerning all procedures and records appropriate to these principles and their application**

For the successful implementation of HACCP, appropriate documentation and records must be kept and be readily available. e.g. cooking temperatures, delivery or cleaning records. It is unrealistic to operate HACCP or to demonstrate compliance with the current legislation without providing evidence such as written records. As with HACCP itself, the complexity of the record keeping will very much depend on the nature and complexity of the business. The aim should be to ensure control is maintained without generating excessive paperwork.

## 6. Further Information

**Food Safety Authority of Ireland**

- Selecting an External HACCP Consultant

- Food Safety Management Based on the Principles of Hazard Analysis Critical Control Point (HACCP)

- Guidance Note No. 10. Product Recall and Traceability

- Guidance Note No. 11. Compliance with Regulation 4.2 of the European Communities (Hygiene of Foodstuffs) Regulations 2000 (S.I. No. 165 of 2000)

- Guide to Food Safety Training - Level One: Induction Skills

- Guide to Food Safety Training - Level Two: Additional Skills

**National Standards Authority of Ireland**

- I.S. 3219:1990. Code of Practice for Hygiene in the Food and Drink Manufacturing Industry.

- I.S. 340:1994. Hygiene in the Catering Sector.

- I.S. 341:1998. Hygiene in Food Retailing/Wholesaling.

- I.S. 342:1997. Guide to Good Hygiene Practice for the Food Processing Industry in Accordance with the Council Directive 93/43/EEC on the Hygiene of Foodstuffs.

- I.S. 343: 2000. Food Safety Management Incorporating Hazard Analysis and Critical Control Point (HACCP).

- I.S. 344: 2002. Hygiene for Domestic-Scale Food Production.

## 7. Further Advice

- Local health board (see back cover)

- Food Safety Authority of Ireland (see back cover)

### REMEMBER

Since April 1998, food businesses are required by law to have a food safety management system based on the principles of HACCP.

**On your next inspection your environmental health officer will be assessing your business for the existence and quality of your food safety management system based on the principles of HACCP.**

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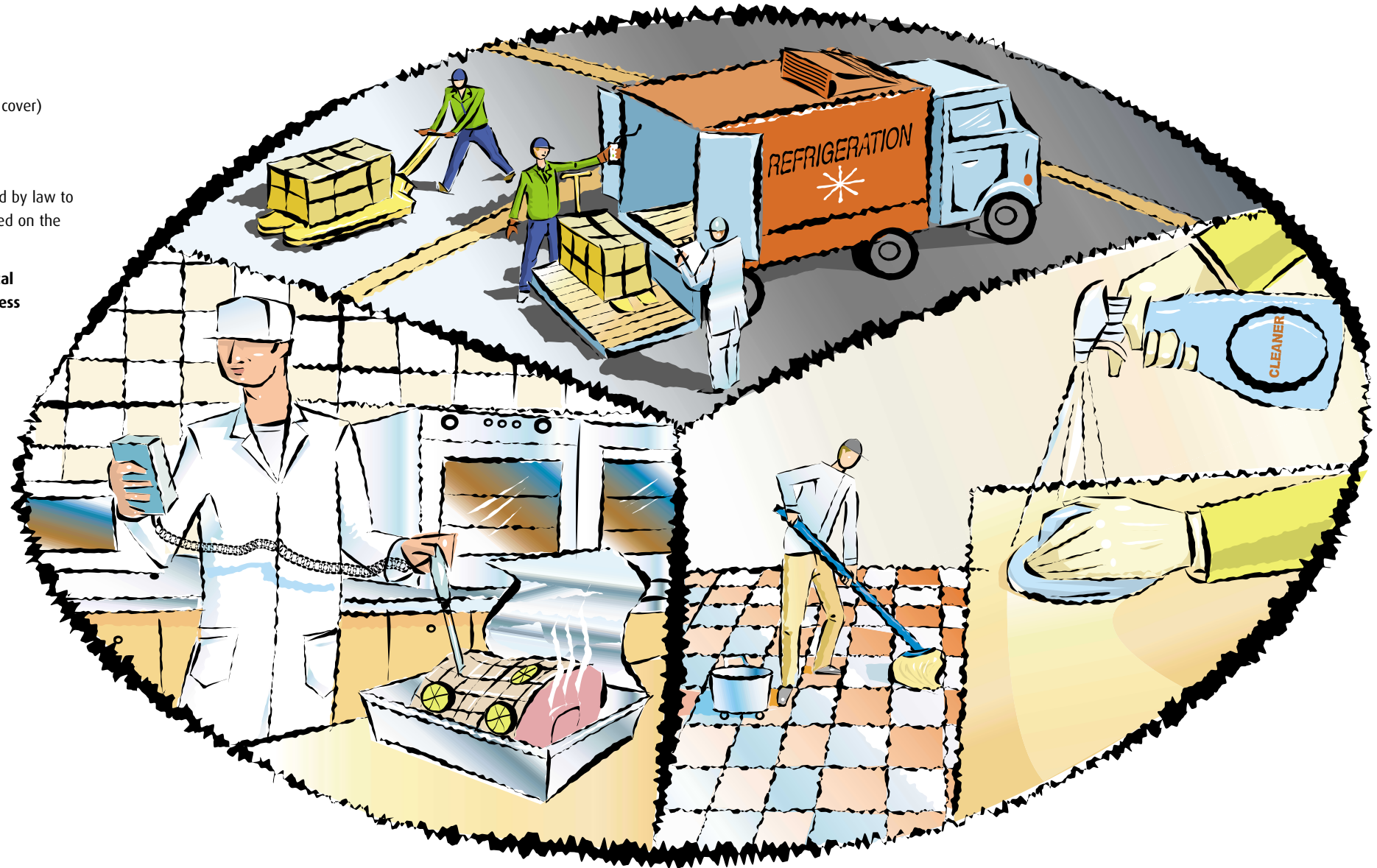
### East Coast Area Health Board

Head Office
Southern Cross House
Southern Cross Business Park
Boghall Road
Bray
Co. Wicklow
Tel: 01 2014200
Web: www.erha.ie

### Midland Health Board

Administrative Headquarters
Arden Road
Tullamore
Co. Offaly
Tel: 0506 21868
Web: www.mhb.ie

### Mid-Western Health Board

31/33 Catherine Street
Limerick
Co. Limerick
Tel: 061 316655
Web: www.mwhb.ie

### Northern Area Health Board

Head Office
Swords Business Campus
Balheary Road
Swords
Co. Dublin
Tel: 01 8131800

### North Eastern Health Board

Administrative Head Office
Kells
Co. Meath
Tel:    046 80500
Web:  www.nehb.ie

### North Western Health Board

Headquarters
Manorhamilton
Co. Leitrim
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Web: www.nwhb.ie

### South Eastern Health Board

Head Office
Lacken
Dublin road
Kilkenny
Co. Kilkenny
Tel: 056 84100
Web: www.sehb.ie

### Southern Health Board

Administrative Headquarters
Wilton Road
Cork
Co. Cork
Tel: 021 4545011
Web: www.shb.ie

### South Western Area Health Board

Oak House
Lime Tree Avenue
Millennium Park
Naas
Co. Kildare
Tel: 045 889100

### Western Health Board

Administrative Headquarters
Merlin Park Regional Hospital
Galway
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Web: www.whb.ie

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