



Level 4 Award in Food Safety Management for Manufacturing Syllabus

A Introduction

Candidates should understand the relationship between food safety and the socio-economic cost of food-borne illness and is able to:

- i Outline the economic costs to employers and the personnel costs of food-borne illnesses.
- ii Explain the benefits to the employer of high standards of food safety.
- iii Describe the manager's role in managing food safety.
- iv State the trend in the incidence of reported cases of food-borne illnesses over recent years and the foods that are most commonly involved.
- v Explain the reasons for seasonal variations and the groups most at risk in reported outbreaks of food-borne illness.

B Ensuring compliance with legislation and industry guidance

Candidates should understand the format of UK and European food safety legislation as it relates to the management of food safety in a manufacturing business and be able to:

- i Understand the application of EC Directives to member states.
- ii Explain the key aspects of present UK legislation.
- iii Describe the role of industry guides and codes of practice.
- iv State how legislation is applied, actions that may be taken by enforcement officers and the consequences of non-compliance.
- v State the responsibilities of proprietors, managers, supervisors and food handlers towards food safety.
- vi Explain the role that managers have in communicating food safety to staff.

- vii State the responsibility that managers have towards the maintenance of appropriate food safety records and demonstrating due diligence.
- viii Describe the role of management when working with enforcement officers to investigate an outbreak of a food-borne illness.

C Food safety hazards

Candidates should understand the potential for food contamination and how it can be controlled in a manufacturing business and is able to:

- i Explain the hazards associated with skin injuries and infections, wearing of jewellery, nail varnish, inadequate protective clothing, personal bad habits and practices.
- ii Describe the most common intrinsic and extrinsic physical contaminants, inherent and introduced chemical contaminants (including mycotoxins), microbial contaminants (including bacterial toxins), and food allergens and explain the controls for prevention, detection, and removal.
- iii State, with examples, the symptoms of acute and chronic food-borne illness caused by some chemicals, poisonous plants and certain types of fish.
- iv Describe the structure, shape and size of bacteria, the functions of spores and their role in the survival of bacteria and describe toxin formation, and distinguish between exotoxins and endotoxins.
- v Explain how bacteria multiply, the influencing factors, the generation times and the significance of the growth curve.
- vi Explain the principles involved in using time and temperature to control microbial and enzyme activity in food.
- vii Explain the methods used to identify bacteria.
- viii State the differences between food poisoning and food-borne infection and the symptoms of illness they cause.

- ix State the sources, common foods involved, incidences, vehicles, routes of transmission, onset times, symptoms, likely carrier status and control measures for: *Salmonella* spp, *Clostridium perfringens*, *Staphylococcus Aureus*, *Clostridium botulinum*, *Bacillus cereus*, *Vibrio parahaemolyticus*, *E-coli* and *E-coli* O157, Bacillary dysentery, *Listeria monocytogenes*, *Salmonella* Typhi and *Salmonella* Paratyphi, *Campylobacter* enteritis, viruses, yeasts, moulds and parasites.
- x State the nature of food spoilage organisms, the effects they can have on those who ingest them and how they are controlled in the processing of food.

D Allocation of responsibilities

Candidates should understand and be able to allocate responsibilities and practice the management skills required to ensure food safety and be able to:

- i State the personal requirements necessary for a food handler and explain the need for careful staff selection.
- ii State why all staff have responsibilities in respect of food safety.
- iii State the controls necessary in respect of persons suffering from, or suspected of, suffering from food-borne illness.
- iv Explain the problems caused by carriers and the controls that can be implemented in a manufacturing environment.
- v Describe the role of the food safety manager when new products are introduced or changes to products are made.
- vi Explain how non-food personnel, such as maintenance staff, visitors and delivery persons, can contaminate food and how this can be managed.

E Managing the operational requirements of a safe food business

Candidates should understand the importance of factory and equipment design to keep food safe and be able to:

- i Describe the criteria used in selecting a suitable site for a food premises and the internal design with regard to work flow, personnel facilities, waste disposal and adequate cleaning and disinfection
- ii Explain how standards are maintained in respect of transporting food internally and externally
- iii Explain safety information relating to the product and packaging
- iv Describe the design features and properties of food equipment
- v Explain the requirements for efficient and hygienic use of chillers, refrigerated and frozen food storage units

- vi Establish a priority list for repairs and improvements based on food safety risks
- vii Explain the role of safe storage and handling of food to minimise contamination and how stock control systems can be implemented, monitored and recorded

F Cleaning and disinfection regimes

Candidates should understand the principles and procedures for the satisfactory cleaning and disinfection of food premises and be able to:

- i Explain the need for and benefits of cleaning and the principles of implementing and managing a cleaning system including safe storage of cleaning materials
- ii Define the terms cleaning, detergent, disinfection, sanitiser and sterilisation and the properties required for the chemicals used for each process.
- iii Describe cleaning processes, including CIP, for a range of activities, areas and equipment in a manufacturing plant.
- iv Describe the management and administrative functions in relation to cleaning and cleaning schedules.

G Supplier quality and safety controls

Candidates should understand the importance of good raw material intake and be able to:

- i Explain the importance of purchasing only from reliable sources.
- ii Describe the methods that can be used to assess the safety of incoming stock and food equipment.
- iii Describe the requirements for safe transport, delivery and receipt of stock.

H Pest controls

Candidates should understand the need for the control of food pests in premises used for the manufacture of food and be able to:

- i Explain the habitat and characteristics of food pests, such as rats, mice, flies, cockroaches, psocids, pharaoh's ants, stored product insects and birds and the reasons for controlling them in food factories.
- ii Explain the environmental, physical and chemical methods of controlling food pests, including their limitations.
- iii Explain the importance of obtaining and/or utilising professional advice or personnel, and monitoring the effectiveness of their methods.

I Establish food safety management procedures

Candidates should understand the seven basic principles of the HACCP system and be able to:

- i Explain the importance of implementing a HACCP system and how it can be applied to various products.
- ii Explain how to develop a HACCP plan, including a HACCP team, the multidisciplinary nature of HACCP and its scope.
- iii Produce product workflow diagrams for a range of products and explain how they can be verified.

J Monitoring the implementation of food safety management procedures

Candidates should understand the importance of implementing a safe food procedure and be able to:

- i Explain how hazards are identified and how they are assessed as being critical to food safety.
- ii State how critical limits are set, implemented, including tolerance parameters, recorded and monitored.
- iii Explain how corrective actions are implemented if controls are not met and managed.
- iv Establish procedures to verify the efficiency of the HACCP system.
- v State how changes of product and operations can affect food safety procedures and how changes can be managed.

K Maintaining food safety management procedures

Candidates should understand the importance of system evaluation and communication of change and be able to:

- i Explain the importance of monitoring and reviewing procedures and responding to problems.
- ii Explain the importance of regular management inspections and internal audits.
- iii State how the HACCP system can be communicated to all staff and develop a communication system when changes in procedure occur.
- iv Establish procedures to evaluate and review the HACCP system.

L Communication, sources of information and training

Candidates should be able to communicate staff responsibilities within a food management system and be able to:

- i Describe how food safety procedures can be communicated to all staff responsible for its implementation, maintenance, monitoring and evaluation to develop and maintain a food safety culture.
- ii Describe the sources of further information and guidance on food safety and food safety management systems and acknowledge when this may be required.
- iii State the need for, and benefits of, food safety training.
- iv Explain the factors to be considered in the development, content and methods of effective food safety training programmes required for all associated personnel.
- v Explain the use and benefit of assessing training needs and the maintenance of training records.



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