

Level 4 Award in Food Safety Management for Manufacturing

Centre and trainer guidelines

This qualification meets industry's need for a high-level training programme with external accreditation. The syllabus and assessments have been developed with reference to the QCF unit J/502/0348.

The training programme is delivered by registered centres and trainers and consists of at least 36 hours of teaching time, typically over five or more days.

For candidates to achieve the award they must undertake a controlled assignment based on their chosen workplace and take a written examination.

Successful candidates will be able to:

- guide and advise on the management of food safety in a manufacturing business
- contribute to the management of food safety in a manufacturing business
- identify further technical knowledge necessary in food safety management procedures
- determine further training requirements
- identify areas for legal compliance
- determine good practice
- design an improvement plan
- outline a HACCP-type plan
- promote and encourage good standards of food safety
- liaise with enforcement officers
- deliver level 1 and 2 food safety training (with appropriate training skills).

The programme is ideal for:

- owners or managers of manufacturing businesses
- trainers
- supervisors with level 3 food safety knowledge
- those who monitor and audit food safety systems.

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 foodborne 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 foodborne 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.

Programme information

1 Programme structure

- 1.1 The programme must cover the syllabus in a minimum contact time of 36 hours. Contact time is the time taken to deliver actual training and does not include assignment preparation work, refreshment breaks, revision sessions or 'mock' examinations.
- 1.2 Centres may formulate the programme structure to suit clients' needs. However, the training programme must cover the whole syllabus.
- 1.3 Ideally the training should be trainer-led with as many opportunities as possible for candidate participation and may include site visits, individual or group exercises. Time taken for site visits should be in addition to the minimum recommended programme length.
- 1.4 In addition to the training, candidates are required to prepare a scoping document for the controlled assignment. This document, which describes certain aspects of their chosen workplace, must be submitted with the controlled assignment. Candidates who are not currently employed can base their scoping document on a previous workplace or will have to gain work experience sufficient to produce the details required to complete a scoping document. Trainers are permitted to offer guidance (with reference to the exemplar scoping document), but the candidate must complete his/her own scoping document. The scoping document is not assessed, but will be referred to by the marker/moderator of the controlled assignment.
- 1.5 All centres will be provided with exemplar scoping documents and sample controlled assignments, examination questions and answer information. These documents may be photocopied or downloaded from the CIEH website.
- 1.6 Candidates must complete at least 80% of the programme to be eligible to sit the controlled assignment and examination. Trainers should submit a request for special consideration where circumstances have prevailed that have prevented a candidate from attending 80% of the programme (see 'Procedure for special consideration' in the *Procedure Manual*)

2 Administrative procedures

- 2.1 To receive controlled assignments and examination papers, centres can complete an order form and send or email it to Sales at least 28 days prior to the examination date. Sales will also accept telephone orders on 020 7827 5900.
- 2.2 Changes to the order can be made in writing up to 14 days prior to the examination date.
- 2.3 If you wish to increase the number of controlled assignments and examination papers ordered after this date, you will incur an additional administration fee.
- 2.4 Controlled assignments and examination papers are serial numbered and assigned specifically to the date you have chosen, they cannot be used on any other date.
- 2.5 Controlled assignments and examination papers will be dispatched to centres seven days prior to the examination date. If you do not receive them, contact Sales – on 020 7827 5900 or email sales@cieh.org – as a matter of urgency.
- 2.6 The conduct of the controlled assignment and examination is the responsibility of the trainer (see 'Procedure for examination and assessment' in the *Procedure Manual*).
- 2.7 The controlled assignment should be completed on the same day as the written examination. If this is not possible, it must be within seven days and all assessment materials must be stored securely in the interim. If more than seven days lapse, centres must make a request for special consideration.
- 2.8 Special examination arrangements can be made to assist candidates who have learning difficulties or candidates for whom English is not a first language (see 'Procedure for reasonable adjustment' in the *Procedure Manual*).
- 2.9 The CIEH must be notified of any changes in circumstance immediately (see 'Procedure for special consideration' in the *Procedure Manual*). Trainers must complete a 'Request for special consideration' form and additional charges may be incurred.
- 2.10 If a candidate is unable to sit the controlled assignment and/or examination due to ill health, a copy of the medical certificate and the unused controlled assignment and/or examination paper are required to secure a credit.
- 2.11 At the end of the examination all the papers, used and unused, must be returned to Examination Services.
- 2.12 Make sure that the candidate list(s) has/have been completed properly and the candidates have provided all the correct information on the front page of the controlled assignment and examination paper.
- 2.13 Send the controlled assignments (with the scoping documents) and examination papers (used and unused), together with the candidate list(s) and examination feedback form to Examination Services by registered post within 24 hours of the assessment. Make sure the package is wrapped securely.
- 2.14 The CIEH will not accept responsibility for the controlled assignments and examination papers until they are received at Chadwick Court. The CIEH advises the centre to keep copies of all completed assessment documents until the results are received.
- 2.15 Centres must be aware that markers and moderators have strict marking deadlines. If assessment materials are not sent to Examination Services within 24 hours of the examination, the processing of results and certificates will be delayed.
- 2.16 The results take approximately 6–8 weeks to process as the controlled assignments and examination papers are sent to a marker and then on to a moderator for standardisation. Documents submitted for assessment cannot be returned to the candidate.

- 2.17 All results and certificates are sent directly to the centre. On receipt of the certificates, the trainer should check the certificates to ensure they are correct. They should then be signed by the Programme Director and despatched to the candidates. Any incorrect certificates should be crossed through and returned to Examination Services with the replacement certificate order form detailing the error (this form can be downloaded from our website www.cieh.org).
- 2.18 CIEH regrets that it cannot give results to individual candidates.
- 2.19 Candidates should be made aware of the need to store the certificate safely since they may require it for verification purposes in the future.
- 2.20 Replacement certificates are available in the event of loss or damage, but there is a fee payable.
- 2.21 In the event that a trainer or candidate is dissatisfied with the result(s), the appeals procedure can be invoked (see 'Procedure for candidate appeals' in the *Procedure Manual*).

3 The controlled assignment

- 3.1 Prior to undertaking the controlled assignment, candidates are required to produce a scoping document of their chosen workplace. Candidates should complete the scoping document form provided by the CIEH (this can be downloaded from www.cieh.org). This form asks the candidate to describe his/her chosen workplace, the type of food prepared and his/her role. The candidate should not exceed the word limit of 500 words.
- 3.2 The candidate should take the scoping document with him/her to refer to when he/she sits the controlled assignment. The scoping document should be submitted with the controlled assignment to aid the process of marking/moderation.
- 3.3 The controlled assignment must be completed under examination conditions according to the 'Procedure for examination and assessment' (see the *Procedure Manual*).
- 3.4 The controlled assignment comprises two sections: the first is based on HACCP principles and the second on the application of food safety management. Both sections must be completed by the candidate with reference to his/her chosen workplace.
- 3.5 The controlled assignment is worth 100 marks. The pass mark for the controlled assignment is 60.
- 3.6 Candidates have two hours to complete the controlled assignment, but they may leave the examination room after one hour.

4 The examination

- 4.1 The examination must be conducted according to the 'Procedure for examination and assessment' (see the *Procedure Manual*).
- 4.2 The CIEH Level 4 Award in Food Safety Management for Manufacturing examination paper consists of five structured questions, worth 20 marks each. All questions must be answered. The pass mark for the examination is 60.
- 4.3 Candidates have 2½ hours to complete the examination, but may leave the examination room after one hour.

5 Final mark

- 5.1 The final mark is the average of the marks achieved in the controlled assignment and the written examination. Candidates must gain at least 60 marks in each assessment and an average mark of 60–74 to achieve a pass, 75–89 and above to achieve a merit and 90 and above to achieve a distinction.
- 5.2 Candidates who do not achieve at least 60 will be deemed to have failed. Candidates have one opportunity to re-sit the controlled assignment and/or the examination upon submission of the appropriate candidate entry fee. Re-sits must be taken within six months of the date that results are released. Candidates who do not re-sit within six months of the date the results are released, or fail their second attempt, are required to complete the whole programme again re-sitting the controlled assignment and the examination.



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