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Qualification Specification
Highfield Level 2 International
Award in Legionella Awareness
(Hot and Cold-Water Systems)

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Highfield Level 2 International Award in Legionella Awareness (Hot and Cold-Water Systems)

Introduction

This specification is designed to outline all you need to know in order to offer this qualification in your Centre. If you have any further questions, please contact your Centre Manager.

Key Facts

Duration	6 hours
Assessment Method:	Multiple-choice question examination

Qualification Overview

The objective of this qualification is to support a role in the workplace and is for learners who work in environments where legionella growth is a risk. It aims to raise awareness in order to prevent waterborne disease caused by legionella bacteria. It provides learners with the knowledge and understanding of:

- the characteristics of and health risks associated with legionella bacteria
- the importance of risk management, training, and competence
- the risks associated with legionella bacteria in hot and cold-water systems
- the control of risks associated with legionella bacteria in hot and cold-water system.

Important Note: Highfield recommends that you contact the relevant Government Department in the country that you want to deliver this qualification, to ensure that local laws are being adhered to and that there are no additional approval requirements. It may be that you are required to register as a training provider within the country itself. Highfield approves centres based on its own criteria but does not represent any other organisations or regulatory departments.

Entry Requirements

Centres are responsible for ensuring candidates can meet the necessary level of language in which the course is being delivered. It is recommended that learners are a minimum of 16 years of age.

Delivery and Assessment Ratios

To effectively deliver and assess this qualification, it is recommended that centres do not exceed the ratio of 1 qualified tutor/assessor to a maximum of 20 learners in any one instance.

Guidance on Delivery

The total qualification time for this qualification is 6 hours, which may be adjusted in accordance with learners' needs and/or local circumstances. This qualification will usually be delivered in a classroom environment, however, if it is delivered via e-learning or a blended learning approach, then GLH would be adjusted accordingly.

Guidance on Assessment

This qualification is assessed by a multiple-choice question examination. This method of assessment is an end-of-course exam and must follow the Highfield Qualifications Examination and Invigilation Procedures. The examination for this qualification contains **20** questions that must be completed within **45** minutes. Successful learners must achieve a score of at least **13** out of **20** (66%). Learners will achieve a Distinction at **16** out of **20** (80%).

The examination will be completed via Highfield's e-assessment platform www.highfieldworks.com and the result will be available instantly. If paper-based examination was requested as a special consideration, completed examination papers should be returned to Highfield for marking. Results will be provided to the centre once the marking and quality assurance checks are completed.

Centres must take all reasonable steps to avoid any part of the assessment of a learner (including any internal quality assurance and invigilation) being undertaken by any person who has a personal interest in the result of the assessment.

Recognition of Prior Learning (RPL)

Centres may apply to use recognition of prior learning or prior achievement to reduce the amount of time spent preparing the learner for assessment.

For further information on how centres can apply to use RPL as described above, please refer to the recognition of prior learning (RPL) policy in the members area of the Highfield website. This policy should be read in conjunction with this specification and all other relevant Highfield documentation.

Guidance on Internal Quality Assurance

Highfield recommends that centres have a robust mechanism in place for quality assurance. The quality assurance checks of the training delivery and assessments must be completed by a competent person at the centre, who must ensure that all Highfield training and assessment paperwork is completed to the correct standard and within the timescales advised by Highfield. Persons completing the quality assurance function, should not have been involved in any aspect of the delivery/assessment of the course they are quality assuring.

Highfield will conduct external quality assurance engagements to support Centres in the effective implementation and on-going management of this qualification. For example, this could be conducted via Highfield sampling Centre paperwork or conducting support visits to Centres.

Geographical Coverage

This qualification is for learners outside of the UK.

Tutor/Assessor Requirements

Highfield requires that nominated tutors for this qualification meet the following standards:

- **hold a relevant subject area qualification or have appropriate experience. Subject area qualification could include any of the following:**
 - Highfield Level 3 Award in Legionella Control for Responsible Persons (RQF);
 - Degree or Dip HE in a related subject such as: chemistry, microbiology
 - HNC/D in a related subject (as outlined above)

- If nominated tutors do not hold a suitable qualification, it is recommended they have a minimum of 3 years' experience in facilities management (or similar role) within industries that deal with risk of legionella (such as the leisure industry).
- **hold a recognised teaching qualification, which could include any of the following:**
 - Highfield Level 3 International Award in Delivering Training (IADT);
 - Highfield Level 3 or 4 Award in Education and Training;
 - Highfield Level 3 PTLLS, or above;
 - Diploma or Certificate in Education;
 - Bachelors or Master's Degree in Education;
 - Level 3 or 4 NVQ in training and/or development;
 - Proof of at least 30 hours of training in any subject; and
 - Any other qualification and/or experience deemed appropriate by Highfield

Registered tutors are expected to keep up-to-date with developments in this subject through continuous professional development.

Reasonable Adjustments and Special Considerations

Highfield has measures in place for learners who require additional support. Reasonable adjustment such as additional time for the exam; assistance during the exam, such as using a scribe or a reader; translations; requests for remote delivery, is available upon approval from Highfield. Please refer to Highfield's Reasonable Adjustments Policy for further information/guidance on this.

<https://www.highfieldinternational.com/downloads>

ID Requirements

All learners must be instructed to bring photographic identification to the assessment to be checked by the assessor. The assessor must note the type of photo identification provided by each learner on the learner list document. Highfield will accept the following as proof of a learners' identity:

- National identity card (e.g. Emirates ID card);
- Valid passport (any nationality);
- Signed photo card driving licence; or
- Other photographic ID card, e.g. employee ID card (must be current employer), student ID card

For more information on learner ID requirements, please refer to the Highfield Examination and Invigilation Regulations within the Core Manual.

Progression

Progression and further learning routes include:

- Highfield Level 3 Award in Risk Assessment (RQF)
- Highfield Level 3 International Award in Health and Safety in the Workplace
- Highfield Level 3 Award in Health and Safety in the Workplace (RQF)

Highfield offers a range of qualifications to help learners progress their careers and personal development. Please contact your Centre Manager for further information.

Useful Links

The following links are recommended to support centres in the delivery of this qualification:

- <https://www.highfieldinternational.com/download> (for First Aid videos)
 - www.highfieldproducts.com (Highfield Products)
 - <https://www.hse.gov.uk/pubns/books/l8.htm> Health and Safety Executive Code of Practice
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Appendix 1: Qualification Unit

Unit 1: Understanding the risks of legionella in hot and cold-water systems
Level: 2
Duration: 6 hrs

Learning Outcomes	Assessment Criteria
<i>The learner will</i>	<i>The learner can</i>
1. Understand the characteristics of and the health risks associated with legionella bacteria	1.1 Describe the conditions required for legionella bacteria to multiply 1.2 Describe the methods of transmission and infection 1.3 Describe the typical symptoms of Legionnaires' disease 1.4 Identify the groups of people most commonly at risk to infection
2. Understand the importance of risk management, training, and competence	2.1 Outline the process of risk management 2.2 Explain the importance of competent staff 2.3 Explain the importance of monitoring and review
3. Understand the risks associated with legionella bacteria in hot and cold-water systems	3.1 Outline how hot and cold-water systems operate 3.2 Describe the factors that contribute to the risk of legionella bacteria within hot and cold-water systems
4. Know how to control the risks associated with legionella bacteria in hot and cold-water system	4.1 Explain the requirement for routine monitoring 4.2 Describe the requirements for routine checks of the system 4.3 State the importance for carrying out legionella testing 4.4 Explain the requirements for cleaning and disinfection

Amplification

This section of the specification expands on the assessment criteria defined in the above unit and includes suggested content that a training course should cover in order to adequately prepare learners for the assessment.

LO1: Understand the health risks associated with Legionella bacteria

- Know the definition of:
 - disease, causative agent, infection, pathogen, aerobic, biofilm, aerosol, outbreak, pneumonia, incubation period, biocides, scale
 - The conditions required for legionella bacteria to multiply:
 - Temperatures between 20°C to 45°C
 - The presence of biofilm, nutrients or other microorganisms
 - Stationary and stagnant water
 - Oxygen
 - How legionella bacteria multiply – identically double
- The methods of transmission and infection:
 - Inhalation of contaminated aerosols
 - Inhalation of droplet nuclei
 - How using this knowledge, we can try and avoid the transmission of the disease

- The typical symptoms of Legionnaires' disease:
 - Initial symptoms of fever, chills, headache and muscle pain
 - Dry non-productive cough and severe breathing difficulties
 - Confusion, delirium, diarrhoea and vomiting
 - The difference between Legionnaires' disease and pontiac fever
- The groups of people most commonly at risk:
 - Men
 - The elderly
 - Individuals with compromised immune systems
 - Why some people are more susceptible
 - How it is difficult to prevent individuals physically being exposed to the risk

LO2: Understand the importance of risk management, training, and competence

- Know the definitions of:
 - hazard, risk, risk assessment, risk management, legionella control scheme and schematic diagram
- The process of risk management:
 - Legionella risk assessment
 - Produce and implement a written control scheme
 - Appoint competent staff
 - Records and ongoing maintenance
 - Review
- The importance of competent staff:
 - Knowledge and training (both formal and hands-on training)
 - The importance of individuals understanding their roles and carrying out tasks in a safe and competent manner
- The importance of monitoring and review:
 - The circumstances for when a formal review is required
 - If significant changes have been made to the system
 - If changes have been made to the responsibility structure
 - If routine monitoring indicates that the system may no longer be under control
 - If there is an outbreak near to or associated with the system
 - The requirements for reviewing the risk assessment and the written control scheme, including:
 - Management structure
 - Competence of staff
 - Roles and responsibilities of staff including any changes
 - Schematic diagram
 - Design of the system and changes to the system
 - Risk of legionella contamination and multiplication in the system
 - Risk of exposure in the area
 - Control scheme
 - Records
 - Control in last period and any corrections implemented

LO3: Understand the risks associated with legionella bacteria in hot and cold-water systems

- How hot and cold-water systems operate:

- The basic components of a hot and cold-water system
- Why their design and method of operation can cause systems to present a risk
- The factors that contribute to the risk within hot and cold-water systems:
 - Why systems pose a risk, including:
 - Generation of aerosols
 - Stagnant conditions
 - Low use of systems
 - Temperature of operation
 - Nutrients
 - Biofilm
 - Dead legs
 - How removing parts of the system and controlling the operation of the system can be used to minimise and control the risk factors

LO 4: Know how to control the risk of legionella bacteria in hot and cold-water systems

- Know the definition of cleaning, disinfection and flushing
- The requirement for routine monitoring:
 - How monitoring and checks contribute towards controlling the risk factors within a system
- The requirements for routine checks of the system:
 - The checks that are required:
 - Weekly physical (and chemical) tasks required on site
 - Monthly and quarterly physical (and chemical) checks and tasks required on site
 - Six-monthly physical (and chemical) checks and tasks required on site
 - Annual physical (and chemical) checks and tasks required on site
 - Where these checks need to be conducted and how to correct control
 - Recording of results
 - The role of oxidising and non-oxidising biocides
 - The local/national legal requirements
- The requirement for carrying out legionella testing
 - The circumstances for when a legionella test is carried out
 - Interpretation of results
 - The course of action in response to a positive result
- The requirements for cleaning and disinfection
 - Basic steps for cleaning a hot and cold-water system
 - The circumstances under which cleans are required