

Course Level: 2

Course Credits: 1.00

Course Description:

Course overview and objective

This course is designed for those learners wishing to gain an understanding of practical Legionella control in hot & cold water systems. (It is not a nationally recognised qualification RQF).

The start of the course provides learners with the knowledge and understanding of the events Legionella required to cause infection, how to identify and control the risks associated with Legionella and how legislation and codes of practice can support its control. It is also designed to aid in ensuring the competence of all operatives who have responsibilities understand the significance of the tasks and how they fit into Legionella control.

The second part of the course provides learners with the knowledge and understanding of Legionella control in the design and operation of hot & cold water systems. It is also designed to aid in ensuring the competence of all operatives who have allocated responsibilities understand the significance of the tasks and how they fit into Legionella control.

H&C - Introduction & Learning Objectives

Unit Ref: H&C00

Unit Level: 2

Introduces the course, the assessment method and the history of Legionella.

- 0 Introduction and Assessment
 - The team
 - Candidate Assessment
 - History - The Name Legionnaires' disease
- 0 H&C Learning Outcomes
 - H&C Learning Outcomes
 - H&C Learning Outcomes - But 1st Legionella and the management of it.

H&C - Understanding the Management Requirements of Legionella Control

Unit Ref: H&C01

Unit Level: 2

Understand the health risks and causative chain associated with Legionella

Explain how Legionella bacteria get into domestic water systems, how Legionella bacteria multiply, the nutritional conditions required for legionella bacteria to multiply, temperature conditions required for legionella bacteria to multiply, biofilms, routes of Infection, dissemination methods of transmission, the initial and more advanced symptoms of Legionnaires' disease, The groups of people most commonly at risk to infection.

Number of cases of Legionnaires disease. Recognise the legislation and codes of practice in the management of Legionella in workplace premises. Allocation of responsibility, Inspection and Enforcement, Understand individual responsibilities within a written control scheme & Record keeping. Training, and Competence and the need for reviews.

Legionella awareness for hot and cold water systems

- 1 Understand the health risks and causative chain associated with Legionella
 - 1.1 The Domino effect.
 - 1.2 Explain how Legionella bacteria get into domestic water systems.
 - 1.3 How bacteria multiply
 - 1.4 Legionella bacteria
 - 1.5 Nutritional conditions required for legionella bacteria to multiply.
 - 1.6 Temperature conditions required for legionella bacteria to multiply.
 - 1.7 Biofilms & Legionella multiplication.
 - 1.8 Routes of Infection - Inhalation
 - 1.9 Summary of conditions that promote the growth of Legionella
 - 1.10 Routes of Infection - Aspiration
 - 1.11 Dissemination methods of transmission.
 - 1.12 The initial and more advanced symptoms of Legionnaires' disease
 - 1.13 The groups of people most commonly at risk to infection.
 - 1.14 Legionella species with different levels of virulence.
 - 1.15 The Domino Effect - Halted
- 2 Cases of Legionnaires disease
 - 2.1 Cases of Legionnaires' disease in England and Wales
 - 2.2 Under reporting
- 3 H&C Understand the scope of legislation and codes of practice in the management of Legionella in workplace premises.
 - The legislation - The Health & Safety at Work etc. Act 1974
 - The legislation - Regulations COSHH
 - Approved code of practice L8
 - Guidance note HSG274
 - Other guidance
 - Prosecution - Failure to comply.
- 4 Allocation of responsibility
 - 4.1 The Dutyholder
 - 4.2 Competent person - Responsible Person(s)
 - 4.3 Communication & Allocation
- 6 H&C Legionella Risk Assessment - The Process
 - Hazard or Risk
 - Risk assessment process
- 7 A written control scheme & Record keeping
 - 7.1 A written control scheme
 - 7.2 Schematic diagrams
 - 7.3 Record keeping

H&C - Legionella Hot and Cold Water Systems.

Unit Ref: H&C02

Unit Level: 2

- 1 H&C Proportionality
 - ACoP L8 - low risk situation
- 2 H&C Types of Hot & Cold water systems
 - Instantaneous water heaters
 - Instantaneous water heaters - Gas
 - Low volume POU water heaters
 - Combination Water heaters
 - Gravity without recirculation
 - Gravity with recirculation

Legionella awareness for hot and cold water systems

- Pressurised (tankless) water systems
- 3 H&C Cisterns and Tanks
 - Header Tanks (Cisterns)
 - Tanks in Parallel
 - Tank Inspections
 - Water Heaters (Calorifiers)
 - External heat exchangers & Buffer vessels
 - Expansion vessels
- 4 H&C Distribution systems
 - Failure in hot water system return
 - Sentinel locations
 - Routine temperature testing
 - Cold Water Supply Temperatures
 - Thermostatic Mixing Valves
- 5 H&C At the Outlets
 - Dead Ends and Dead legs
 - Flexible Hoses
 - Showers
- 6 H&C Considering Cleaning & Disinfection
 - C&D When to and to what standard
- 7 H&C Water treatment
 - Pretreatment
 - POU Bacterial retention filters
 - Biocides
- 8 H&C Sampling & Summary
 - Microbiological sampling - TVC
 - Microbiological Sampling - Legionella
 - Summary risk observations