Level 3 An Introduction to Hydrogen Safety Practices: Module Overview

Awarding Body : TLM - UCAS Tariff points - 8

Guided Learning	*Type of qualification*	*Assessment*
3 days	Accredited Level 3 Award	End point assessment

Purpose – refine your mastery

While our Level 3 modules are the same as Level 1 and Level 2, our Level 3 course contains more detailed, scientific explanation across both units. Level 3 has significantly more content and complex detail, which adds an additional level challenge.

The Level 3 Award in Hydrogen Safety Practices is designed to support professionals either working in or studying in a related industry, developing their understanding of how to be safe when working with hydrogen.

This course provides the opportunity to:

- Engage in learning that is relevant and will provide opportunities to develop a range of skills and techniques; including personal skills and attributes essential for safe working practices
- Achieve a nationally recognised Level 3 qualification
- Develop personal growth and engagement in learning more about this exciting industry.

Unit 1: Hydrogen Fundamentals (2 credits)

1. Understand the production and properties of hydrogen	2. Understand the requirement for safe storage and transportation of hydrogen	3. Understand current hydrogen policies and benefits of hydrogen adoption
1.1 I can explain the characteristics and behaviour of hydrogen.	**2.1** I can identify the safety concerns in transporting hydrogen.	**3.1** I can describe the key climate and energy targets and how they related to hydrogen.
1.2 I can explain what an energy carrier is.	**2.2** I can describe the challenges for hydrogen storage and transportation.	**3.2** I can identify any relevant regulations and legislation that relate to hydrogen as an energy carrier.
1.3 I can describe how hydrogen can be classed as an energy carrier.	**2.3** I can describe the regulatory requirements for storing or transporting hydrogen.	**3.3** I can describe the potential of including hydrogen as part of an energy infrastructure.
1.4 I can explain how hydrogen compares to other energy carriers.	**2.4** I can describe the safety protocols needed when transporting or storing hydrogen.	**3.4** I can explain the challenges for the use of hydrogen.
1.5 I can explain the benefits of hydrogen as an energy carrier.		**3.5** I can explain the opportunities for the use of hydrogen.
1.6 I can explain the processes for hydrogen production.		

Unit 2: Hydrogen Safety (3 credits)

1. Know the principles of risk assessment in the context of safe storage and transportation	**2.** Know the importance of safe manual handling in the workplace, specifically in relation to the storage and transportation of hydrogen	**3.** Understand the risks to health associated with working with hydrogen	**4.** Know the importance of working around hydrogen safely.
1.1 I can explain the objective of conducting risk assessments and method statements, specifically for hydrogen storage and transportation.	**2.1** I can explain the reasons for prioritising safe manual handling in the workplace, particularly when dealing with hydrogen storage and transportation.	**3.1** I can identify the primary categories of substances classified as hazardous to health according to current regulations.	**4.1** I can describe the potential ways in which injuries can occur due to the movement and storage of hydrogen.
1.2 I can explain the legal obligations regarding risk assessments and method statements related to hydrogen storage and transportation.	**2.2** I can identify the potential injuries and health issues that can arise from improper manual handling techniques in the context of hydrogen-related activities.	**3.2** I can describe the common health risk that can arise when working with hydrogen.	**4.2** I can explain the significance of having safeguards in place near areas where plant, machinery and equipment are being used for hydrogen-related activities.
1.3 I can explain the consequences of failing to prevent accidents and illnesses in the workplace during hydrogen storage and transportation activities.	**2.3** I can describe the responsibilities of employees as stipulated by current legislation and official guidance.	**3.3** I can explain the significance of proper storage practices for combustibles and chemicals.	**4.3** I can describe he various methods to eliminate or control risks associated with working around plant, machinery or equipment used for storage and transportation of hydrogen.
1.4 I can identify typical hazards and potential risks associated with hydrogen storage and transportation.	**2.4** I can explain the importance of utilising site safety equipment while handling materials and equipment with hydrogen storage and transportation.	**3.4** I can describe the various types of personal protective equipment (PPE) that should be used when handling hazardous materials in order to mitigate risks to health.	**4.4** I can identify the hazard warning signs and symbols commonly used when operating, working with, or in close proximity to hydrogen-related activities.