# **HYDROGEN SKILLS ACADEMY**

## Hydrasun Hydrogen Safety Awareness Technician Level Course

The Hydrasun Hydrogen Safety Awareness course is designed for technicians already working, or those considering the transition to working in the hydrogen sector. With more novel and innovative applications for hydrogen anticipated, we need to ensure that we firstly identify, and then manage the risks associated in working with Hydrogen safely. A fundamental understanding of hydrogen's physical properties and key behaviours will be key to safely developing and deploying it as a net zero energy vector.

This course will provide technical knowledge in working safely with hydrogen. On successful completion, the delegate will be awarded a Hydrasun certificate of course completion.

#### **COURSE DURATION**

1 day

#### **PRE-REQUISITE**

None

#### **CERTIFICATION**

Hydrasun certificate of attendance

#### **TRAINER**

 Our trainers and assessors have been certified by external accreditation bodies

#### COST

Price on application – maximum6 delegates per course

#### **COURSE DETAILS**

#### Hydrasun and hydrogen

- Hydrogen A brief history
- Hydrogen properties and characteristics
- Current hydrogen technology and associated applications
- Current HCR release data

#### Understand the behaviour of hydrogen in different phases

Liquid v gaseous hydrogen

### Hydrogen hazard analysis and associated risk management

- Hazard analysis and risk assessment
- Root cause review of hydrogen incidents
- Risk mitigation and control measures
- Fire safety / emergency response / first aid

#### Regulations relating to hydrogen

- Pressure Equipment Directive (PD)
- Pressure Systems Safety Regulations (PSSR)
- ATmosphères Explosibles (ATEX)
- Dangerous Substances Explosive Atmosphere Regulations (DSEAR)
- Low Voltage Directive (LVD)
- Electromagnetic Compatibility (EMC)
- Hospital Acquired Conditions (HAC)
- Control of Major Accident Hazards (COMAH)

#### Technical considerations when working with hydrogen

- Hydrogen piping systems, layout and design
- Leak and flame detection
- Inc thermal imaging
- System purging and gas handling
- General hydrogen Storage considerations
- Inc ventilation requirements
- Emergency shutdown systems

#### Procedural & SSOW compliance

- TBT
- RA
- Competence



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