



Australian Government

UEGNSG902 Commission, operate and maintain electrolysers

Release: 1

UEGNSG902 Commission, operate and maintain electrolysers

Modification History

Release 1. This is the first release of this unit of competency in the UEG Gas Industry Training Package.

Application

This unit involves the skills and knowledge required to commission, operate and maintain electrolysers to produce hydrogen in a hydrogen plant environment in accordance with relevant industry standards, regulations, manufacturer instructions and workplace procedures.

It includes following procedures to carry out the work correctly and safely, using appropriate materials, tools and equipment.

The application of the skills and knowledge described in this unit may require a licence/registration to practise in the workplace.

Other conditions may apply under state and territory legislative and regulatory licensing requirements which must be confirmed prior to commencing this unit.

Pre-requisite Unit

Not applicable

Competency Field

Hydrogen

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to commission, operate, and maintain electrolysers

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Relevant manufacturers' instructions and specifications, emergency procedures, industry codes, standards and regulations are obtained and confirmed

- 1.2 Hazards and WHS/OHS risks are identified and prioritised and control measures implemented and monitored
 - 1.3 Relevant person/s are consulted and work is prioritised and sequenced for completion within agreed timeframes and to industry standards in accordance with workplace procedures
 - 1.4 Work health and safety (WHS)/occupational health and safety (OHS), environmental and sustainable energy policies and procedures for the work are obtained and applied
 - 1.5 Work schedule/s, drawings, plans, job requirements and material lists are obtained, analysed and site inspection conducted, as required, to determine the preparation work required for planning and coordination
 - 1.6 Appropriate equipment, tools and personal protective equipment (PPE) required for the job are obtained and checked for correct operation and safety in accordance with workplace procedures
 - 1.7 Work area is prepared to minimise risk and damage to property, commerce and individuals in accordance with job instructions, work schedule and workplace procedures
 - 1.8 Electrolyser and associated equipment, pipework and storage are confirmed for correct installation
- 2 Commission and operate electrolysers**
- 2.1 Regular checks are undertaken in accordance with manufacturers' instructions and specifications, industry codes, standards and regulations
 - 2.2 Relevant manufacturers' instructions and specifications, emergency procedures, industry codes, standards and regulations are implemented
 - 2.3 WHS/OHS risk control measures and policies and procedures are followed in accordance with workplace procedures
 - 2.4 Hazardous activities are performed safely in accordance with job instructions, regulatory requirements and workplace procedures, and manufacturers' instructions and specifications.

- 2.5 Electrolyser is commissioned and operated in accordance with manufacturer instructions, workplace procedures and job requirements
- 2.6 Materials, tools, equipment and devices to perform the work are selected and used correctly and safely in accordance with manufacturer instructions and workplace procedures
- 2.7 Unplanned events are dealt with or referred to authorised person/s for directions in accordance with level of responsibility and workplace procedures
- 2.8 Alarm codes, signage and other hazard warnings are correctly recognised and WHS/OHS risks and control measures monitored, actioned and appropriate authorities consulted in accordance with requirements and workplace procedures
- 2.9 Emergency shutdown procedures are applied in the event of equipment faults/failure or operational parameters being exceeded
- 2.10 Quality and safety checks of the work are conducted in accordance with job requirements, industry standards and workplace procedures

3 Maintain electrolysers

- 3.1 WHS/OHS risk control measures and policies and procedures are followed in accordance with workplace procedures
- 3.2 Materials, tools, equipment and devices to perform the maintenance work are selected and used correctly and safely in accordance with manufacturer instructions and workplace procedures
- 3.3 Systems isolation is performed, as required, in accordance with requirements and workplace procedures
- 3.4 Electrolyser is maintained and parts replaced as required, in accordance with job requirements, level of responsibility, workplace procedures and manufacturer instructions
- 3.5 Electrolyser is recommissioned to safe operational conditions in accordance with job requirements, workplace procedures and manufacturer instructions
- 3.6 Unplanned events are dealt with or referred to authorised

- person/s for directions in accordance with level of responsibility and workplace procedures
- 3.7** Quality and safety checks of the work are conducted in accordance with job requirements, workplace procedures and community and industry standards
- 4 Complete work and relevant documentation**
- 4.1** Work area is cleaned up, made and confirmed safe in accordance with job instructions and workplace procedures
- 4.2** Tools, equipment and any surplus resources and materials are cleaned, checked and returned to storage in accordance with workplace procedures
- 4.3** Relevant person/s are notified of work completion in accordance with workplace procedures
- 4.4** Work completion records and report forms are completed in accordance with job instructions and workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEG Gas Industry Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This is a new unit.

Links

Companion Volume Implementation Guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6a6c032e-ffcb-4f3d-8063-415efbd261e8>