



Australian Government

Assessment Requirements for UEGNSG906 Undertake routine hydrogen storage operations

Release: 1

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Modification History

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

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - emergency response procedures
 - sustainable energy and environmental principles and practices
 - hazard identification and reporting
 - hydrogen specific electrical hazard control measures and earth protection
 - implementation of risk control measures
 - selection and use of correct personal protective equipment (PPE)
 - safely working with hazardous materials and equipment
- communicating with relevant stakeholders, including:
 - authorised persons
 - authorities
 - producers and users
- calibrating instruments used in performing tests and checks
- completing relevant reports and documentation
- complying with regulations, industry standards, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- dealing with unplanned events
- following workplace procedures, including:
 - emergency shutdown procedures
 - standard operating procedures
- interpreting relevant drawings, plans and material lists
- isolating systems
- obtaining and complying with relevant work permits
- performing tests and checks, including:
 - corrosion inspections
 - filter checks, including differential pressure

- gas leak test
- meter checks
- pressure and temperature checks
- status and condition checks on ancillary equipment
- visual inspections of relief vents
- planning hydrogen storage operations
- recording relevant information
- shutting down operations and equipment
- using relevant equipment, including:
 - electronic gas detection
 - measuring equipment
 - personal protective equipment (PPE)
- working safely in a hydrogen environment.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- correct use of plant and equipment in a hydrogen environment, including:
 - how to select appropriate equipment for tasks associated with hydrogen
 - manufacturer specifications to make adjustments to parts where appropriate
 - measuring equipment
 - operating alarm and communication equipment
 - operating hydrogen analysis equipment
 - operation, testing and inspecting equipment that includes pressure vessels and associated fitting
 - storage equipment, fitting, piping, and controls
 - test equipment and its uses
- hydrogen storage container pressure and capacity recommendations and limitations
- hydrogen physical and chemical characteristics
- inventory levels
- gas industry drawings, plans and material lists
- permit to work systems in a hydrogen environment
- principles of safe purging
- regulations, industry standards, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- relevant stakeholders
- relevant WHS/OHS legislated requirements, including:
 - applicable emergency equipment and procedures

- hazards, risk assessment and control measures
- environmental and sustainable energy principles and practices, including:
 - blue hydrogen
 - brown hydrogen
 - green hydrogen
 - grey hydrogen
- relevant workplace documentation
- quality and safety checks
- relevant workplace policies and procedures
- technical drawings for the hydrogen environment.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6a6c032e-ffcb-4f3d-8063-415efbd261e8>